A Study of the School Attitudes of Grades 4-6 Indian Students in the Schools of Northwestern Saskatchewan

A Thesis

Submitted to

The Faculty of Graduate Studies and Research

in Partial Fulfillment of the Requirements

for the Degree of

Master of Education

in the Department of Educational Administration

of the College of Education

University of Saskatchewan

by

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North Battleford, Saskatchewan

June 1989

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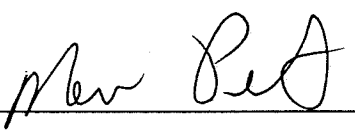
SIGNATURE 

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ABSTRACT

The intent of this study was to compare the attitudes toward school of elementary Indian and non-Indian students living in Northwestern Saskatchewan as these attitudes related to grade, school location, race and gender differences.

The literature was reviewed with two main themes, that of the history of Indian education and the development of Indian control of education and the relationship of academic self-concept to performance of children in an academic atmosphere.

To assess the differences in attitudes, the Student Attitude Measure developed by Dolan and Enos with the scales including **motivation for schooling. academic self-concept performance based, academic self-concept reference based, sense of control over performance,** and **instructional mastery** were used. This instrument was administered to 1443 grades four, five and six students. All the data from the questionnaires identified as Indian (N=610) were used, but only a matched random sample of non-Indian (N=176) questionnaires were used from the students located in provincial schools. The various group mean scores were analyzed statistically by one-way analysis of variance and a Student Newman-Keuls multiple comparison was used to determine significant differences among group responses. The Canadian Test of Basic Skills was obtained for the reserve attending students and the composite score was correlated with the various measures of the Student Attitude Measure.

The results of the study were that:

1. Non-Indian students had significantly higher scores on all five measures of the Student Attitude Measure.

2. Differences by grade level were minimal with the Indian students scoring higher at the grade six level than the grade four, whereas, with the non-Indian student the grade six

students scored significantly lower on one measure- that of self-concept performance based.

3. Gender differences for Indian students were minimal with females having higher motivation for school scores and males having higher self-concept performance based scores. With the non-Indian students, the females scored significantly higher on motivation, self-concept reference based and control over performance.

4. For the Indian students, the location of the school did make a difference. Students located in the Band controlled or rural provincial schools scored significantly higher on most SAM measures as compared to the Federal or city attending Indian students. Students in the city schools had the lowest scores.

5. For the non-Indian student, school location did not produce significantly different scores on the SAM.

6. There was a significant correlation between the Canadian Test of Basic Skills and the scales measuring motivation, self-concept reference based, sense of control over performance and instructional mastery.

Acknowledgements

This writer would like to express his appreciation to Dr. Patrick Renihan, his thesis advisor, for his help and guidance from the inception to the completion of this study. Appreciation is also extended to committee members Dr. Allan Guy and Dr. Joseph Pyra. Special thanks is also extended to Dr. Roger Trottier, who served as the external examiner. The writer would also express his gratitude to Dr. Del Konig and Dr. Earle Newton who assisted in reviewing the study.

Appreciation is also extended to the Indian Bands and School Divisions for their cooperation and assistance with this study. The cooperation of the teachers and principals made the data gathering very enjoyable.

The writer would like to particularly acknowledge his wife's understanding and encouragement for this past year. Finally, I would like to thank my children, Tanya and Morgan, for their help in the data input and their special enthusiasm which helped make the entire effort that much more meaningful and enjoyable.

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CHAPTER ONE

Introduction

The education of Canadian Indian children who reside both on reserves or federal crown land is the responsibility of the federal government. The performance of Indian children on standardized tests has been a concern to the federal government for a number of years (Hawthorn, 1968, INAC, 1982). This concern has been expressed in various ways leading to the general improvement of education on the reserves throughout Canada. The most important factor to emerge recently has been that of greater parental involvement in the education of Indian children (INAC, 1982). This sense of ownership has been important in improving the educational performance of Indian children in reserve schools.

Although there has been substantial improvement in Indian education, there still are some major concerns regarding the performance of Native children on standardized tests. One can discount these tests as simply being invalid due to their cultural bias (MacArthur, 1962, Chan, 1984, Parry 1982). However, there is some merit in standardized tests if they are used carefully with the goal of improving the education of Indian children.

The North Battleford district of the federal department of Indian Affairs began to implement a program of standardized testing in May of 1984. The Canadian Test of Basic Skills (CTBS) was used because of its general use by

the school divisions around North Battleford and in many other parts of Canada. It was hoped that useful comparisons could be made between the reserve schools and those in the neighboring non-Indian school divisions. However, the greatest use was perceived to be at the school and district levels, as these norms would be most useful for the principals and teachers as a diagnostic tool in providing improved learning opportunities for students.

The performance of Indian children is behind that of the non-Indian children in the neighboring school divisions (Kozun, 1985). There are also differences in academic performance between the schools and within each of the reserve schools (Sask.Indian Cultural College, 1973, Davis, 1986, Kozun, 1985).

Another factor of interest to educational administrators was the attitude of students toward school and their perception of control over their performance. The study of attitudes of Indians and non-Indians toward schooling has been carried out by various researchers (McDonald-Jacobs, 1988, Garner & Cole, 1986, Luftig, 1983, Martig & DeBlaissie, 1973, Bruneau, 1985). The resulting literature does indicate that there is a significant relationship between self-perception and performance in school.

Since 1972, the Canadian government has been increasingly involving the parents of Indian children in the education of their children. This involvement increased radically as a result of a reaction by the Indian community to the federal government's 1969 policy document commonly known as the "White Paper". The reaction to the document led to more schools being operated by Indian bands themselves rather than the education program being operated by the federal government. In Saskatchewan the trend for the takeover of programs

has followed the national pattern. According to Ed Borinsinkoff, Regional Superintendent of Education of the regional office of the federal Department of Indian and Northern Affairs there still were 17 federal schools with 84 teachers still directly administered by the federal department of Indian Affairs. There were 50 schools employing 457 teachers that were totally Band-operated (personal communication Dec.2/88). With this increased control of the education program by Indian Bands compared to the operation of federal schools by the federal government there should be some difference in the perception of how Indian students judge themselves when they attend a Band operated school as compared to a federally operated school. In a study of a locally controlled school in central Manitoba, Hurlburt, Henjum and Elde (1983) reported that "students in a locally controlled school report themselves to be more academically successful than Native students in a non-Native school" (p. 22).

Purpose of the Study

The purpose of this study was to look at attitudinal relationships among Indian students who attended a Band-controlled school, students who attended a federally operated school, and students who attended provincially operated schools as they pertained to school attitudes.

McDonald-Jacobs (1987) studied 393 grades four to six students both on and off-reserve. In that study, she found significant differences (as measured by an adapted School Attitudes Measures instrument) between the attitudes of Indian students attending federal schools on reserve and the Indian students

attending provincial schools. In addition, she found significant differences in the attitudes of the Indian and non-Indian children with the non-Indian children having higher self-concept scores.

It was the intention of this researcher to replicate the McDonald-Jacobs (1988) study utilizing Indian students in Northwestern Saskatchewan. Differences in student attitude and performance between Band-controlled schools and federal schools was also considered. For students attending reserve schools, the differences in attitudes was also compared to previous CTBS test scores. These additional factors provided additional explanation for possible differences in how Indian and non-Indian children view themselves and their schools.

Research Questions

1. Are there any significant differences between Indian and non-Indian students in regard to:
   a) attitudes toward school?
   b) academic self-concept ?
   c) feeling of control over performance?

2. Are there any significant differences among students according to grade level in regard to:
   a) attitudes toward school?
   b) academic self-concept?
   c) feeling of control over performance?

3. Are there any significant differences between male and female students in regard to:

   a) attitudes toward school?

   b) academic self-concept?

   c) feeling of control over performance?

4. Are there any significant differences among Indian students in federally operated schools, Band-operated schools, and provincially operated schools in regard to:

   a) attitudes toward school?

   b) academic self-concept?

   c) feeling of control over performance?

5. Are there any significant differences among non-Indian students when students are located in a provincial school located in a rural area or in a city in regard to:

   a) attitudes toward school?

   b) academic self-concept?

   c) feeling of control over performance?

6. What was the relationship of CTBS scores of Indian students on reserve in regard to:

   a) attitudes toward school?

   b) academic self-concept?

   c) feeling of control over performance?

Significance of Study

The results of the study should be of value to school administrators and policy makers. Greater efforts need to be made to ensure that the Indian student is obtaining the kind of education that meets with parental wishes and results in student success in the academic environment.

Relationships concerning attitude to school by Indian students may stimulate changes in the approach to the traditional educational program in schools. Approaching the delivery of education from an affective rather than predominantly in a cognitive fashion, may help to positively change the attitudes of aboriginal students. Although many schools are reviewing their curricula as they pertain to Indians, not enough material of a culturally positive nature is available in most schools. The McDonald-Jacobs (1988) study found that Indian students attending the reserve schools had lower mean school attitude scores than the Indian children attending integrated schools. That latter group had lower mean scores than the non-Indian students. The proposed study, involving Indian students from a Band-controlled setting could have implications for students who are currently in integrated provincial schools.

In 1985 the Saskatchewan Human Rights Commission had mandated certain affirmative action as outlined in Education Equity (1985). The results from this study could support some of their policies with school divisions having significant numbers of Native children. By providing a higher profile for Native people in the provincial school systems of Saskatchewan these changes could be beneficial to the future of Indian education in Saskatchewan.

Assumptions

The following assumptions were made for this study:

1. That the researcher would have access to the reserve schools in the North Battleford district of Indian Affairs.
2. That the researcher would have access to the necessary student data for the purposes of this study.
3. That the researcher would have access to the provincial schools in the North Battleford district.
4. That the CTBS scores were valid for the Indian children residing in the North Battleford district.
5. That the Thomas Nelson scoring service had provided accurate data on the CTBS scores for the reserve schools in the study.
6. That the instrument developed by Dolan and Enos. the Student Attitude Measure, accurately measures attitudes toward school, academic self-concept and feelings of control over performance.

Delimitations

1. The only Indian students of interest in this study were in federal and Band operated schools in Northwestern Saskatchewan.
2. Only CTBS scores were used as a measure of performance for the children in this study.
3. The only provincial schools used in this study were the schools located in Northwestern Saskatchewan.

4. The study was delimited to only those students presently in grades four, five and six.

Limitations

1. There were gaps in the data records for the students attending schools on reserve.
2. The questionnaire was limited by the level of students' honesty in responding to the questions.
3. The study was limited by the time of school year during which the Student Attitude Measure was administered.
4. The sample does not reflect the proportion in the population. The non-Indian students were selected on a random basis by school so the researcher could minimize the effect of socio-economic status.

Definition of Terms

Age-grade misplacement Number of years off from the normal age-grade placement if a child starts kindergarten by age five, or grade one by age six.

Attitude Feelings toward school which affect student behavior in school as measured by the Scott, Foresman and Company's School Attitude Measure. The instrument was designed to measure group attitudes for research purposes rather than to be used as an individual diagnostic aid.

Band A body of Indians for whom the federal government has set land aside for their whole and beneficial use.

Band-operated School A school funded by the federal government but controlled and operated by the band council of the band of Indians.

CTBS The Canadian test of basic skills is a standardized set of tests meant to measure the scholastic achievement of students in schools in Canada. The tests were normed in Canada and produced by Nelson Canada Ltd. of Toronto.

District The divisions within the federal department of Indian Affairs. There are seven districts of Indian Affairs in the province of Saskatchewan.

Federal School A school operated by the department of Indian Affairs for Indian children residing on a reserve.

Feeling of control over performance The perception of ability to control situations in school and to exercise control over situations that affect them at school, as measured by the Scott, Foresman and Company School Attitude Measure.

Indian Student For the purposes of this study, a person of aboriginal ancestry who usually lives on a reserve and attends school on reserve or chooses to be bussed into a provincial school. This may include students who are Non-Status or outside the legal definition of Indian but students whose parents associate themselves as being Indian.

Provincial School A school operated by a board of trustees under the Saskatchewan Education Act. Indian students attend if their parents choose to have their children bussed into the provincial school or if their parents reside in an urban setting.

Reserve A tract of crown land set aside for the beneficial use of a band of Indians.

Self-Concept The perception of self as a successful or unsuccessful student as measured by the Scott, Foresman and Company School Attitude Measure. The intention of this instrument is to obtain group behaviour for research purposes rather than for this instrument to be used as an individual diagnostic tool.

CHAPTER TWO

Literature Review

Introduction

Much of the literature on Indians is of a historical nature. Although very interesting, not much of the literature is of value when one is doing an empirical study relating to the improvement of education for children of Indian ancestry. However, a short historical perspective is useful to gain an appreciation of the need for this study in trying to find ways to improve Indian education.

The second part of this chapter will deal with the review of the literature as it pertains to school attitudes and self-concept of children and particularly of Indian children. All of these factors affect to an unknown degree the academic success of Indian children in our various school systems.

Historical Background

Prior to European contact, traditional Indian education was successful in the education of young Indians. "When Europeans first came into contact with Amerindian peoples, they were able to observe well-established education practices designed to ensure cultural continuity, and through which the youth were provided with the life skills necessary for their future roles in their societies" (INAC, 1982, Annex C, p.2).

Formal European educational instruction for Indians began with the provision of educational services by missionaries beginning about 1600. Funding was provided by religious societies in Europe. The intent was largely to try to gain converts more than to better prepare students to compete in the larger society. The use of native languages was common by the missionaries. However, the motive was rarely to ensure a quality education, but to be more adept at gaining converts to their respective churches.

From approximately 1750 on, there was more evident support for Indian education. "The Indian College at Sussex Vale, New Brunswick, which was one of six founded by the New England Company, received provincial grants after 1819 when it adopted the Madras system of teaching" (INAC, 1982, Annex C, p.4). Nevertheless, the churches were still highly involved in the operation of the schools.

The period from 1850 to 1950 saw the segregation of Indian education in Canada. There was a "non-Indian belief that these natives should be educated apart from the other North American inhabitants partially to protect the natives from social exploitation" (INAC. 1982, Annex C, p.4).

Indian education in Western Canada had its foundation in the treaties signed between tribal Indian groups and the government of Canada. Most of the treaties in Western Canada were signed in the 1870's as a means of preparing the west for the settlement of Western Canada. Treaty VI, signed in 1876 covers the area concerned by this study.

After 1867 and the passing of the BNA Act, the federal government became more involved in Indian education. The federal government enacted legislation as early as 1880 to implement some of the provisions in the treaties signed at that time. Much of the original intent for Indian education was assimilationist. Boarding schools (residential schools) operated by religious organizations were given the task by the federal government of meeting the educational needs of Indian children as required by the treaties that were signed in Western Canada. In a 1982 submission to a special House of Commons committee on Indian self-government, the witnesses for the Federation of Saskatchewan Indians stated that "It was believed that by removing Indian youth from their homes and placing them in captive environments, the heart and soul of Indian culture would be removed, or a process of de-Indianizing the Indians (sic). Specifically, residential school Indians were not permitted to speak their language, practice their religious beliefs, or have the opportunity to learn what it means to be a self-actualized Indian" (Penner, 1983, p. 28).

In addition to the boarding schools, there were federally operated schools on some of the reserves. The treaties contained clauses which were interpreted to "provide a minimal type of education service such as the paying of the salary of a teacher" (INAC, 1982. Annex C, p.5). The services that were provided were barely minimal and not academically successful (Hawthorn, 1968, Frideres, 1974). Frideres (1974) quoted from a special senate hearing on poverty that "Indian schooling - until 1945 - was 'education in isolation'. During this period, schools and hostels for Indian children were established, but scant attention was paid to developing a curriculum geared to either language difficulties or their sociological needs" (p. 32).

In the United States, there were two major studies on educational achievement of Indian students. These bureau wide testing programs were conducted in 1928 (known as the Merian survey) and 1944-46 (known as the Peterson or University of Chicago study) as documented by Anderson, Collister, and Ladd (1953). The age-grade discrepancies were found to be quite significant. This unhappiness with reserve schools led to a demand for integrated schools in the United States.

The Canadian government initiated a similar study. The Hawthorn study from 1964-1967 was a major undertaking by the federal government to determine the problems with the administration of Indian affairs. Indian parents expressed their unhappiness about Indian education after Indian veterans expressed their dissatisfaction of being prevented from entering many of the military specialty branches because of inadequate academic skills. This led to the demand by Indian leadership for integrated schools in the belief that Indian children would be able to avail themselves of the same standards of education as the dominant society. The period from 1950 to 1970 was one of moving toward integration with provincial schools. By 1966, "52 percent were attending federal schools and 48 per cent non-federal. By 1971 the pendulum had swung and 61 per cent of Indian children (from kindergarten to grade 13) were enrolled in provincial schools" (Frideres, 1974, p. 35).

In 1969, the Honourable Jean Chretien, Minister of Indian Affairs and Northern Development, delivered a statement for the government of Canada on Indian policy. The new policy proposed "that the legislative and constitutional bases of discrimination be removed....(and to) propose to Parliament that the Indian Act be repealed" (Chretien, 1969, p.6). The intentions of the Liberal

government of the day may have been good and part of the 'just society' at the time. However, the reaction by the Indian community was explosive in condemning the Canadian government. "Indian leaders pointed out that, until the socio-economic status of Indian people approximated the level of other Canadians, the discriminatory provisions of legislation constituted a modest kind of protection which they could not afford to lose" (INAC, 1982, Annex C, p.8). Furthermore, the many rights accorded in the treaties would have been lost at the same time.

The governments' 1969 'White Paper' accelerated the growing trend toward local control of all Indian services, including education. This was the last group of people in Canada to become directly involved in the education of their own children. In 1972, the National Indian Brotherhood approved its own position paper entitled Indian Control of Indian Education. The basic philosophy of this document was the claim by the Indian people that they had the right to direct and control the education of their own children similar to the rights of all other Canadians. There were far reaching proposals offered in this document dealing with education at every level including adult education and the necessary facilities to properly educate Indian children and adults. The federal minister of Indian Affairs supported these measures and in 1974, the federal treasury board authorized the core funding of education programs for Indian bands and other native organizations.

Since the demand for local control of education and other services by the Indian people began around 1970, there has been a significant assumption of these services to date. In March of 1983 there were 22,525 (28%) Indian students enrolled in federal schools, 13,133 (16%) in band-operated schools,

43,652 (54%) in provincial schools and 1,156 (1%) in private schools (Canadian Education Association, 1984, p.13). With this increased administrative control of educations programs, there have been many problems while the Bands have learned to operate complex programs with very little administrative training. Nevertheless, there have been many successes with the operation of education programs in Saskatchewan and the rest of Canada. It is the intention of the department of Indian Affairs to devolve all remaining federally operated schools by 1991.

Self-Concept, attitudes, and relationship to achievement

Coleman (as cited in Garner & Cole, 1986) reported in an American national study on 'Equality in Educational Opportunity', that a "child's attitude related strongly to school achievement, and that his or her self-concept and sense of control over the environment - or belief in the responsiveness of the environment - affected school achievement far more than family background or school characteristics" (p. 189). Replicating the McDonald-Jacobs study with the Cree children in the present study could add useful research as Indian children's attitudes affect their school achievement and successes in the educational environment.

Ovando (1984), in a study in Alaska, suggested that achievement in a school setting could be compatible to rather than at cross purposes with Native cultures. The school being studied had special programs to meet the needs of Native students and had a school graduation rate of 75%. The study found very positive correlations of the attitudes toward achievement with the students,

teachers and the parents in the community. The study found that the two cultures could live compatibly and that the Native culture did not have to die for success of the students to be evident.

Self-concept is essentially the attitudes and perceptions one has of oneself. But as Felker (1974) cautions, it is important in dealing with children to remember that this concept is unique for each child. These unique 'ideas' as Felker states, define who and what each child or person is. Teachers need to be aware that the sum of many negative ideas can cause great harm to the development of a child's self-concept and eventually to his attitude and success in school (Felker, 1974, pp.12-13).

The critics of self-concept studies indicate that researchers read too much into the importance of self-concept (Chandler, 1984, Iheanacho, 1988, Mboya, 1986, Pottenbaum, Keith, & Ehly, 1986, Marjoribanks, 1987). Chandler (1984) is most critical in that he claims that the last 20 years have not produced a new instrument that incorporates all of the recent information on self-concept (p.225). He is also critical of the method of measurement of any change that may be produced by a program meant to increase self-concept (p. 226). Chandler concludes his article by wondering if some negative self-concept may be good for students to induce change, or at the least that students are entitled to their negative self-images (p.226).

Pottenbaum, Keith and Ehly (1986) studied the relationship between self-concept and academic achievement on 23,280 sophomores and were unable to find a causal relationship but instead suggested that a third unknown variable may contribute to any measurement differences (p.140). They also noted that

intervention programs in that past have not led to an overall improvement in self-concept and achievement.

In a study of 211 Black adolescents Mboya (1986) did not find a significant relationship between global self-concept and academic achievement; however,he did find a significant relationship between academic self-concept and academic achievement.

The environment which a child comes from is a large factor in the academic success of a child. In an analysis of recent research, Iheanacho (1988) found that studies with minorities where backgrounds were controlled found the minority children having higher self-concepts than white children. The author did state however, that "Native Americans are the most culturally devastated and physically abused of any group in the history of this great nation. They have the lowest standard of living of any ethnic group; academically, native American adolescents are more disadvantaged than blacks and Hispanics" (p.6). The study did find little real difference in self-concept when the environment was controlled: however, the environmental factors largely influence the development of children and how they view themselves as worthwhile contributors to society. Marjoribanks (1987) in a study of 883 families with 11 year old children found a strong relationship between academic performance and ability, a smaller relationship with environmental factors and very small relationship with school-related attitudes.

In a review of the literature and research, it becomes obvious that many researchers and writers feel that the self-concept of children is quite important to their academic achievement in school. Many of the writers caution though, that

the self-concept is multi-dimensional, and that academic self-concept is just one dimension that has a correlation with academic achievement.

Marsh (1984) had extensively researched the self-concept field as it related to student academic performance. In a study of 559 fifth grade students, he sought the relationship as to how students viewed academic success with their ability, their effort and just plain luck. Those students, who attributed their academic performance to their ability and to their efforts, had very high academic self-concepts as compared to those who attributed their success to luck (p.1305). In that same study, it was confirmed that students of average ability had significantly higher academic self-concepts when they were located in low ability schools (p. 1306). It was also found that academic achievement led to changes in academic self-concept (p.1304).

In a study that sought the relationship between self-concept, achievement and sex, Marsh, Smith, and Barnes (1985) found significant differences in the self-concept scores of the children studied. Although the girls had higher achievement scores in both Reading and Math, the girls had lower self-concept scores on math (p.581). The correlation with Math achievement and Math self-concept was 0.55 in an earlier study some of the authors had done (Marsh, Relich, and Smith, 1983).

Humanistic educators like Hummel and Cecil (1984)
felt that educators should be aware of the relationship between academic achievement and self-concept (p.12). They too pointed out the need to have specific measures for specific dimensions of self-concept rather than relating achievement to a global self-concept (p. 13). They noted the weaknesses of

using self-reporting measures and of the examiner error from observational and projective techniques (p.16). Even though measurement is difficult, they recommended using multiple measures to continue the work in a very important area of the education of children.

In a study with 129 elementary Indian and Anglo children, Martig and DeBlassie (1973) found conflicting results when researching self-concept. The authors studied grades one and four students using the Primary Self-Concept Scale which used 23 drawings of children to yield nine different scores. Of the nine self-concept measures in this study, there were no significant differences at different grade levels. There were significant differences between sexes with girls having higher total self-concept, and on the dependent variable of adult acceptance or rejection with
the Indian students having significantly lower mean scores. The authors indicated that although self-concept differences may not be significant "the fact remains that Indians are behind in both educational achievement and attainment" (p.15).

Marsh, Parker and Barnes (1985) found significant academic self-concept differences in a study of 901 grades seven through twelve students. With the use of the Self Description Questionnaire (developed by R.J. Shavelson), the authors found that academic self-concepts correlated with the relevant academic criterion (p. 422). That is, the verbal achievement correlated with verbal self-concept, and the Math achievement correlated with the Math self-concept but there was no correlation with non-academic measures. The authors argued that the results of the study demonstrated that self-concept was multidimensional and that self-concept can only be studied, if this was taken into consideration.

In a recent study Smith (1988) found significant self-concept differences among 286 urban elementary children using the Martinek-Zaichkowsky Self-Concept Scale and teacher ratings of students (p.78).The girls were found to have higher self-concept scores than the boys. As the self-concept scores increased, so did the academic ratings. There was also a correlation between teacher expectation and student self-concept. This self-fulfilling prophecy has been studied before, particularly by Rosenthal in his published findings of "Pygmalion in the Classroom".

Pintrich and Blumenfeld (1985) studied the self-perceptions of ability, effort and conduct and they found significant differences between the ages and sex of 85 second and fifth grade students (p. 647). The researchers used a combination of a questionnaire, teacher ratings and researcher observations of the target children who represented a wide range of achievement ability (p. 649). They found that younger children perceived their ability, effort and conduct more positively than older children. High self-concept was correlated with high achievement and low achievement with similar low ratings, except for effort self-ratings.

Tempest (1985) used the Tennessee Self Concept instrument on Navajo fifth grade students where she found the students generally low in self-concept and high in conflict (p.1). The author used 222 students in eight schools. Tempest found that after an intervention program that the control group differed from the experimental group in variables of anxiety and extraversion (p.5). Tempest concluded that with real caution instruments could be used with Native children to provide programing capable of meeting their emotional needs that would

improve the student's academic achievement. To Tempest "the improvement of the student's self concept is an important task of the educational system" (p. 3).

Using a multi-dimensional approach to self-concept Marsh, Parker, and Smith (1983) studied 958 fifth and sixth grade subjects. They used the Self Description Questionnaire which measured seven components of self-concept and correlated this information with ratings provided by teachers on academic ability and performance measures. The researchers found that academic self-concept was positively correlated with academic achievement and teacher ratings. They also found that non-academic measures were not closely correlated with the academic self-concept.

In a review of the literature, Luftig (1983) claimed there was "evidence to suggest that self-concept of Native American children is negatively correlated with chronological age and years of schooling" (p. 252). He found that the older a child gets, the more negative the view of himself. Luftig suggested that a bi-cultural approach by knowledgeable teachers could do much to positively affect the Indian student's self-concept (p. 256). Luftig claimed that many of the failures at improving the self-concept of Indian students were due to lack of preparation by staff and students. The students needed to be able to participate in both cultures and not be required to 'give up' on the Native culture in order to learn to function in the dominant culture (p. 256).

Bayer (1986), in an experiment with affective education, found significant differences in self-concept between an experimental and a control group. The 30 matched students were randomly assigned to the two groups. The independent variable was the use of affective education. The group process used was that of

being directive with one group and very facilitative with the other group. The researchers switched groups and styles half-way through the program (p.125). The results showed that the experimental group using the affective process showed a significant self-concept gain as compared to the directed control group (p.126). The implications for schools, are that schools need to focus on students feelings' and attitudes in a constructive fashion to help students develop and grow. This is probably more important to native students who are alienated by the average traditional classroom. Bayer ended his article be stating that "affective experiences have been shown to influence student self-concept as well as to influence and predict student achievement" (p. 131).

Differences in self-concept were found by Skaalvik (1983) in a study involving 348 grades two to eight children in Norway. There was no relationship between self-esteem and academic achievement for grades two and three, but significant differences began at the fourth grade with low achievers having a correlated low self-esteem (p.302). It was also found for girls that self-esteem was correlated with achievement in the lower grades, but that this pattern did not continue as girls progressed in school. Around the fourth grade, changes occurred between the boys and the girls. Low achieving girls tended to devalue school as they got older while this did not happen with the boys as they progressed through the grades. In Norway at least, it appears there is more cultural pressure on boys to succeed as compared to girls.

In looking at the alienated secondary school student, Zeeman (1982) stated that "academic failure frequently has devastating effects upon the students self-concept" (p. 459). The study involved 36 grades 10-12 students, who were identified as working below ability levels and presenting behavior that was not

acceptable and 27 grades two and three pupils. The high school students were assigned to a psychology class, were involved in tutoring the elementary students, or were involved in both activities. The remaining students were the control group. After 17 weeks, the high school students were re-tested. The greatest gains in academic self-concept were made by the students who participated in both the psychology class and the tutoring, although there were gains in the other two treatment groups with a decline in the self-concept of the control group (p,460). Zeeman highly recommended that schools seriously consider intervention programs for alienated students to enhance the students academic self-concept.

There is some general agreement that pre-schoolers of different races, on entering school, have similar self-concept scores. Bruneau (1985) compared Native American with Anglo preschoolers using the Primary Self-Concept Inventory. There were negligible differences in the six factors making up the scale with the native students having a higher overall mean average in total self-concept. The students in the study were all from the same environmental area, having been identified by personnel involved in the head-start program. This controlling variable may have contributed to the same scores more than anything else (p.378). Bruneau also added that educators should plan "success-orientated educational experiences that would foster positive self-concept" (p.379).

In looking at curriculum issues, Beane (1982) stated that "academic achievement is related to self-perception, but improving self-concept is an important goal for its own sake" (p. 504). Beane's concern was that researchers were to often just looking at only a small segment of the self-concept, that of academic self-concept. He argued that educators should be looking at

improving the total self-concept of a child, not just one portion, that of the cognitive domain. Curricula need to be put in place that are self-enhancing to the child who attends school and this needs to be well integrated throughout the curriculum, not just for one period per cycle called 'guidance' for lack of a better title.

In a study of native children from an isolated northern Manitoba community, Rampaul, Singh and Didyk (1984) confirmed what many other researchers had found with Native children. Using 41 grades three and four students, the researchers administered a battery of tests for achievement, self-concept and teacher expectation. They found students were age-grade decelerated in achievement and had lower self-concept scores. They also found that self-concept scores were highly correlated with teacher expectations (p. 221).

Many Native children are identified for special needs classes. Hilton (1986), in a review of the literature on the self-concept of exceptional children, had many recommendations for teachers. The labeling aspect with special needs children could be harmful. However, if teachers could arrange for specially identified students to use such tools as computers, this could make learning more positive for the child. Group discussions of their feelings and attitudes could be helpful with these children (p.89). Teachers need to be more sensitive to the affective world of the child rather than exclusively concentrating on the cognitive domain.

Purkey's and Novak's (1984) book, Inviting School Success: A Self-Concept Approach to Teaching and Learning is a must for teachers who are truly concerned with the total development of children in school."In the helping

professions the nature of attitudes, reflected in the messages individuals send and receive, plays a profound role in determining what becomes of people" (Purkey & Novak, 1984, p. 4). In their review of the literature, they found that attitudes of teachers made a tremendous difference to whether a child succeeded academically or not. The 'pygmalion' effect and the self-fulfilling prophecy were factors that teachers needed to be aware of with children. These authors stated that "students learn best when placed in the care of educators who invite them to see themselves as valuable, able, and responsible, and to behave accordingly" (p.9). As students grow and develop, their self-concepts are being shaped and molded by their parents at home and by their teachers at school. Since the development of self is an on-going process, then it becomes of paramount importance for teachers to positively enrich their interactions with children (p. 27). This will help students develop self-concepts wherein they feel that they are capable, worthwhile and contributing members of society. Purkey and Novak do caution educators that trying to change a student's negative self-perception is not an easy task. It takes time to build up the trust to be able to 'feel invited' again. The defensive system that children erect to protect themselves is not easily penetrated by a caring teacher until the student feels he can let himself trust someone again.

In order to be truly effective and 'inviting', teachers must have a healthy self-concept themselves before they can effectively help children (p.42). Purkey and Novak wrote this book with the teacher in mind. The book is extraordinary in convincing educators of the importance of effectively interacting with children by consciously trying to strengthen and positively develop children's self-concept and self-esteem.

Summary

This chapter was a review of the literature that is relevant to this particular study. The first segment was largely historical so as to provide an understanding of where Indian education had been and where it might be going in the future. The more recent history of Indian involvement in the European style of education began with the very strong reaction to Jean Cretien's 'White Paper'. Since then, the Indian community has begun to assume the proper control of the education of their own children. This involvement has been mainly concentrated on the schools located at the reserve level with only minimal involvement in provincial schools.

The latter portion of this chapter looked at the studies involving the self-concept of students and the relationship of how students perform academically. Although there are varying viewpoints on the topic, research has shown a positive relationship between the students' perception of themselves in the academic environment and their performance in school. This should not provide educators with excuses that if children have negative self-concepts then there is little hope of expecting normal academic achievement. Rather, it is the expectation from the review of the literature that the reader might associate that there are definite relationships between academic self-concept and academic achievement. With caring, dedicated teachers and knowledgeable administrative staff, then effective programming can be provided for Native children who are deemed to be at risk in the academic environment.

CHAPTER THREE

STUDY METHOD AND PROCEDURES

Introduction

The purpose of this study was to look at the relationships among students who attended a Band-controlled school, a federally operated school and students who attended provincially operated schools, as they pertained to school attitudes. This was done by replicating the McDonald-Jacobs (1988) study which looked at the attitudes of Mohawk students. The study tried to determine if the attitudes to school were similar with Cree students in Northwestern Saskatchewan. The additional variables of comparing the Indian students in federal and band-controlled schools added to the understanding of these relationships.

With the proposed complete turnover of all federally administered reserve schools to band operation, it was an opportune time to determine if Indian locally controlled schools did have children that had differences in student attitudes, particularly that aspect of the academic self-concept dealing with locus of control over performance. As Garner and Cole (1986) stated "a child's attitude related strongly to school achievement, and that his or her self concept and sense of control over the environment - or belief in the responsiveness of

the environment - affected school achievement far more than family background or school characteristics" (p. 189). The literature does indicate that there is a significant relationship between these variables and academic performance.

Population and Sample

The Band-controlled schools that were used in the proposed study were Onion Lake, Thunderchild, Saulteaux, Sweetgrass, Red-Pheasant, and Poundmaker. The Onion Lake community is on the Saskatchewan-Alberta border and is on the western edge of the North Battleford district of Indian Affairs. The community consists of approximately 1750 people with a school population of 799 as of October 1/88. There were 173 children in grades four to six. The Onion Lake band assumed total control of their education program in September of 1981. The children, taking part in this study had been attending a Band controlled school for their entire period of schooling. The Thunderchild band, located near Turtleford, had a school population of 115 with 24 students in grades four to six. Saulteaux, located near Cochin, had been band controlled since 1983 and had a student population of 126 with 33 students in grades four to six. Red Pheasant, located near Cando, had a school population of 50 with 15 grades four to six students. Sweet Grass, located near Cutknife, had 59 students with nine students in grades four to six. Poundmaker, also located near Cutknife, had 83 students with 21 students in grades four to six.

There were only two remaining federal schools in the federal North Battleford district of Indian Affairs. One school located near Cando (Mosquito Reserve) is very small and had a total student population of only 38 with 10

students in grades four to six. The other federal school, Chief Little Pine, had a total student population of 191 and had 38 students in grades four to six. The larger of the two remaining federally operated schools was scheduled for transfer to Band control on September 1/89. The smaller school did not have a definite planned take-over, but the proposed plan set by the federal government was the transfer of all federal school operations by September 1/91. Three other federally administered schools from the Shellbrook district of Indian Affairs were also included in the study. They were Big River reserve with 330 students and a grades four to six population of 81 students, Witchiken Lake with 26 grades four to six students and Chitek Lake with 16 grades four to six students. The parents, on reserves where there is a federal school, have the choice of sending their children to the federal school or having their children bussed into the provincial schools located near the reserve community. Agreements for purchase of seats dates back to 1969, when large numbers of 'joint school' agreements were entered into by the federal government and local provincial school boards.

The provincial school divisions, located in and near the Battlefords, served as the other major source of students in this study. The schools located in North Battleford are operated by the North Battleford Public School Division and by the North Battleford Roman Catholic Separate School Division. The public school division had 354 students in grade four to six. The Roman Catholic school division had 353 students in grades four to six. The percentage of Native students attending schools in the Battlefords was approximately 25%. Students are bused in to the city of North Battleford from the five reserves surrounding the Battlefords. These reserves are located within a 50 kilometre radius of the Battlefords. The other school divisions participating in the study were Biggar

School Division (school at Cando), Turtleford School Division (school at Turtleford), Wilkie School Division (school at Cutknife), and the Blaine Lake School Division (schools at Leask and Marcellin).

Table 3-1 contains a description of the study population broken down according to grade level and type of school, namely Federal, Band-operated, Rural provincial and City provincial.

Table 3-1

Description of the study population

School Type	Grade 4	Grade 5	Grade 6	Total
Federal Schools	97	59	57	213
Band Operated Schools	96	80	88	264
Rural Provincial Schools	78	104	77	259
City Provincial Schools	224	242	241	707
Sub-totals	495	485	463	1443

The Instrument

The instrument that was used in this study was the School Attitude Measure (Appendix A). Lawrence Dolan (1983) of the University of Rochester was one of the principal developers of a 'Comprehensive Assessment Program' originally published by Scott, Foresman, and Company of Glenview, Illinois, 1980. The test division of Scott, Foresman, and Company has recently been sold to American Testronics of Iowa City, Iowa.

The original instrument was first published in 1980 and was also more commonly known as the SAM (School Attitude Measure). This instrument has five scales which indicate different aspects of academic self-concept. The five scales are: **motivation for schooling, academic self-concept performance based, academic self-concept reference based, sense of control over performance, and instructional mastery** (Dolan, 1983, p.296).

The internal consistency for the set of five scales ranged from .91 to .95 with a test-retest of .80 to .89 (Dolan as cited in Garner and Cole, 1986, p.196). Garner and Cole (1986), who used the **sense of control over performance** portion in some recent research, have added that the instrument had established national norms using 28,300 students (p.196). The **academic self-concept performance** based sub-scale has a reliability of .68 and the **sense of control over performance** has a reliability of .64 (Greene, 1985, p.69). Although other researchers have used only a portion of the complete instrument (Greene, 1985, Garner & Cole, 1986, Ducote, 1982), this researcher sought the expert advice of University of Saskatchewan educational researcher, Dr. John McLeod. Dr. McLeod advised that the using of only two scales from the original instrument did lower the reliability, but that it was still within acceptable reliability limits when using the Spearman-Brown formula

(personal communication November 16/88). Dolan (1983) continued to perform concurrent validity studies using various related criterion measures (p.295). There were significant correlations to academic performance, to teacher, parent and peer ratings as well as to other self-concept measures. Dolan did add that the instrument was not meant as an individual diagnostic tool, since it was designed to measure group attitudes for research purposes (p.302).

Administration of the instrument

The researcher began the collection of data in the latter part of January, 1989. Permission was obtained to administer the questionnaire in the schools indicated in the population sample. The instrument was completed at the reserve schools with all the necessary identifying information. The purpose of the study was briefly explained and the procedures for completing the instrument were reviewed. The classroom teacher read each of the questions and the students marked the appropriate response (ranging from strongly disagree, disagree, agree, to strongly agree). The May, 1988 CTBS scores were also gathered for the students attending the reserve schools involved in this study at the time that the Student Attitude Measure was administered.

The procedure for the students in the provincial school was similar, but the detailed information on the student was not obtained (due to constraints of school board policy). Two items were required from the students attending the provincial schools: after the questionnaire was completed the teacher indicated on the completed instrument whether a) the student was a boy or a girl and b) whether the student was Native or non-Native.

Analysis of Data

All of the information on all students from the reserve schools was analyzed. However, it was the intention of the researcher to use all of the questionnaires marked as Native from the provincial schools but to only use a relative proportion of non-Native questionnaires through a random sample matching the numbers of students by school. Certain schools, with very few Indian students attending, had a somewhat elitist attitude . It was the intention, then, to control for this factor, by including a matched sample of non-Native students who were closer in socio-economic status than in the schools where very few Indian students felt very welcome. The school divisions do not deny attendance for any Indian students in any of their schools in the Battlefords.

It was intended to obtain the means, variance and standard deviations for each of the groups and measures studied. The attitude scores were also correlated with the CTBS scores for the students attending reserve schools.

Inferential statistics, including analysis of variance (One way ANOVA, the Student Newman-Keuls multiple comparison test and the Pearson product-moment correlation) were used to analyze the data gathered for this study. A comparison was made from the data gathered in this study with the analysis done on the data done with the Mohawk children in the McDonald-Jacobs study (1988).

The inferential statistical treatment of the research questions were as follows:

1. One way ANOVA.
2. One way ANOVA and Student Newman-Keuls test.
3. One way ANOVA.
4. One way ANOVA and Student Newman-Keuls test.
5. One way ANOVA
6. Pearson product-moment correlation.

CHAPTER FOUR

Analysis of Data

In this chapter the data gathered from the use of the Student Attitude Survey will be presented and analyzed. A brief description will be given of the population and the relevant statistics will be reported on the information gathered from this study.

The analysis of data was done primarily through one way analysis of variance (ANOVA) with use of the Student Newman-Keuls test for variables that needed multiple comparisons. In addition, the information was further subjected to three way ANOVA's and multiple analysis of variance (MANOVA) to further test the interrelationships of the variables that were shown to be significant.

Description of Population

The 1443 students selected for the survey were grades four, five, and six students in four different settings; city schools, rural schools, federally operated reserve schools and Indian Band operated, locally controlled schools. For the city schools, students from North Battleford were selected (possible population of 707 children in grades 4-6). For the rural schools, the schools near North Battleford of Cando School (Biggar School Division #50), Cutknife School (Wilkie School Division #59), Marcellin School and Leask School (Blaine Lake School Division #57), and Turtleford School (Turtleford School Division #65) were selected (possible student population in grades 4-6 of 259 students). Federally administered schools included two from the North Battleford district; Mosquito Grizzly Bears-Head and Little Pine as well as Chitek Lake,

Big River and Athahkakoop reserves from the Shellbrook district (possible student population of 213 students in grades 4-6). The Band controlled schools included Onion Lake, Thunderchild, Saulteaux, Red Pheasant, Sweet Grass, and Poundmaker schools (possible student population of 264 students in grades 4-6).

As Figure 4-1 indicates the largest percentage of students were from the city school systems. Students in the rural and city systems were further stratified. The students in each of these schools were randomly matched on the basis of sex and race. For every Indian child in the provincial school system, a non-Indian child was randomly selected by school and grade. The non-Indian children were also matched on the basis of sex with the Indian children. The resulting population used then was much more evenly proportional as Figure 4-2 indicates. The population percentages ranged from 21.6% for the federally administered schools to the largest percentage which was 29.7% for the Band-operated reserve school systems.

Total Population of Students in Grades 4-6
from the four systems (N=1443 students)

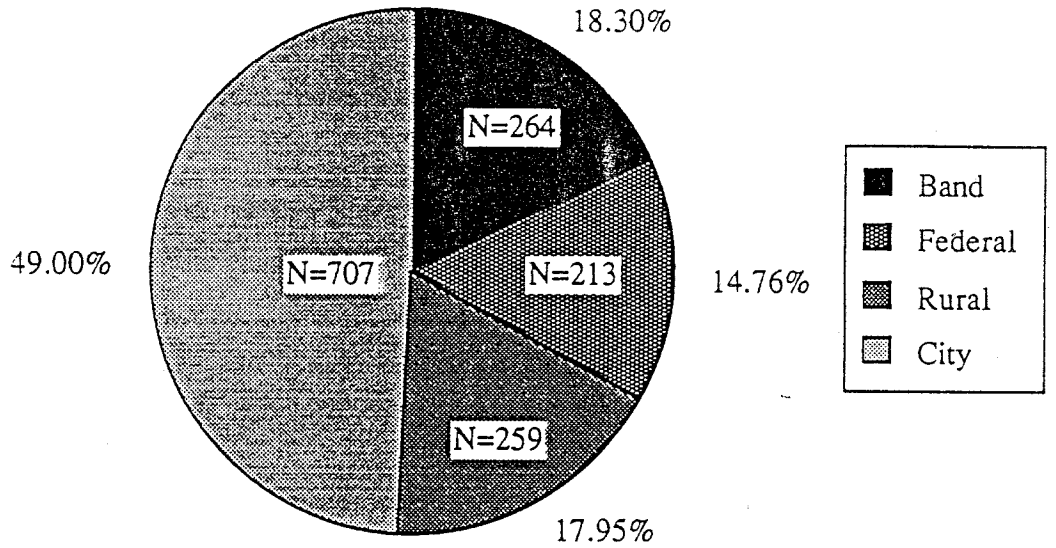

Figure 4-1

Students in Grades 4-6 Selected from
the four systems (N=788 students)

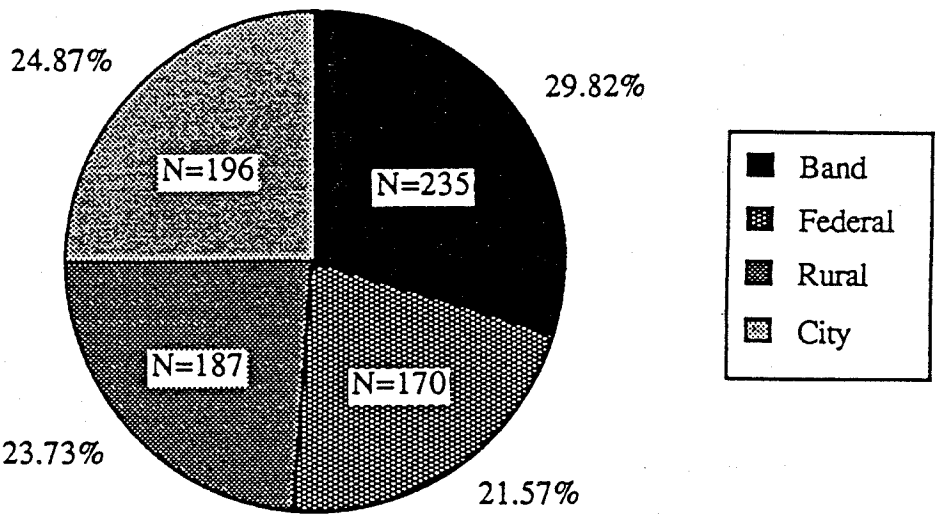

Figure 4-2

The Instrument

The five scales of the Student Attitude Measure (SAM) consist of scale A-**motivation for schooling**, scale B-**academic self-concept performance based**, scale C-**academic self-concept reference based**, scale D-**sense of control over performance**, and scale E- **instructional mastery** with the full-scale being the **academic self-concept** of the student (Dolan, 1983, p.296). The raw scores range from a low of 15 to a high of 60.

Research Question One

Are there any significant differences between Indian and non-Indian students on the student attitude measure?

Figure 4-3 demonstrates the differences between the two groups as measured by the SAM (Student Attitude Measure). These consistent differences in average mean scores are outlined in Table 4-1. In Table 4-2 the summary of one way analysis of variance indicates there were significant differences in the means scores on all sub-scales and the full-scale of the SAM between Native and non-Native students with the Native students scoring consistently lower on all scores. These results were consistent with the findings in the McDonald-Jacobs study on race differences (1988, p.70). McDonald-Jacobs used only sub-scale C **self-concept reference based** and sub-scale D **sense of control over performance** of the SAM instrument for her research in the differences between Mohawk and non-Indian children in southern Ontario.

Figure 4-3

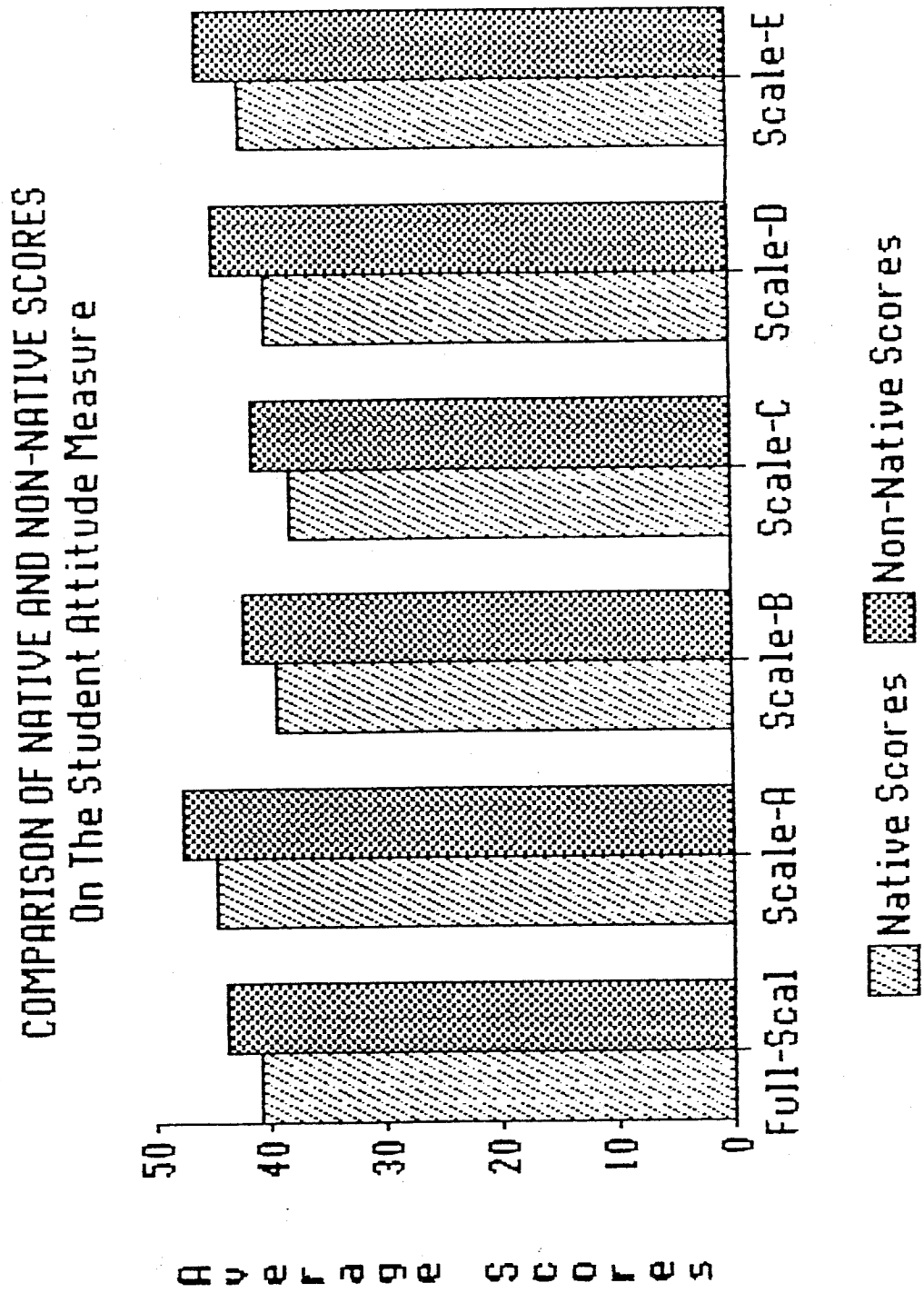
COMPARISON OF NATIVE AND NON-NATIVE SCORES
On The Student Attitude Measure
Average Scores
50
40
30
20
10
0
Full-Scal
Scale-A
Scale-B
Scale-C
Scale-D
Scale-E
Native Scores
Non-Native Scores

Table 4-1

Differences in Academic Self-Concept between Indian and Non-Indian students as measured by the five scales of the Student Attitude Measure (N=783)

	Indian		Non-Indian	
	Mean	Stand. Dev	Mean	Stand.Dev.
Full-Scale -Academic Self-Concept	40.69	4.94	43.86	5.73
Scale-A -Motivation for schooling	44.72	6.78	47.59	6.91
Scale-B -Self-concept performance based	39.19	5.79	41.90	6.34
Scale-C -Self-concept reference based	37.89	5.86	41.26	6.89
Scale-D -Sense of control over performance	40.20	5.89	44.63	6.03
Scale-E -Instructional mastery	42.00	6.43	45.96	7.09

Table 4-2

Summary of Anova Differences Between Indian
and Non-Indian Students on the Student Attitude Measure
(N=783)

	Source	Sum of squares	Mean squares	F Ratio	F Prob
Full-Scale -Academic self-concept	Between	1379.04	1379.04	52.26	000*
	Within	20686.42	26.39		
Scale-A -motivation for schooling	Between	884.34	884.34	17.92	000*
	Within	34496.30	49.35		
Scale-B -self-concept performance based	Between	789.32	789.32	22.62	000*
	Within	24397.37	34.90		
Scale-C -self-concept reference based	Between	1553.86	1553.86	41.63	000*
	Within	29266.40	37.33		
Scale-D -sense of control over performance	Between	2675.45	2675.45	75.98	000*
	Within	27606.38	35.21		
Scale-E -instructional mastery	Between	1688.99	1688.99	39.12	000*
	Within	30176.80	43.17		

* significant at the .001 level

In scale A **motivation for schooling** the Indian student mean was 44.72 and for the non-Indian students it was 47.59. The mean from the standardized instrument is

44.23. Both the Indian and non-Indian groups scored higher than the standardized norms for school motivation. The mean scores were higher for both groups in motivation than for any of the other scales. Both groups had the lowest mean scores on scale C **self-concept reference based** which measures how students feel other people view their academic ability,. The Indian group had a mean score of 37.89 and the non-Indian group had a mean score of 41.26. The standardized average mean score is 37.94. It should be noted that the Indian group mean score was very similar to the standardized mean score with the non-Indian population scoring significantly higher.

The scale with the largest difference in mean scores was scale D, **sense of control over performance**. The Indian students mean score was 40.20 and the non-Indian mean score was 44.63. The standardized mean score is 44.08. This large significant difference indicated that the non-Indian student perceived he was more able to exercise control and responsibility over situations that affect them at school compared to the Indian student.

Research Question Two

Are there any significant differences among the students by grade level?

Of the 786 students participating in this research, 286 (36.4%) students were in grade four, 271 (34.5%) were in grade five and 229 (29.1%) were in grade six. Table 4-3 indicates the means and standard deviations by grade level for the entire sample on the full-scale and each of the sub-scales of the Student Attitude Measure.

Table 4-3
Summary of the mean scores and standard deviation scores for the entire sample by grade level (N=786)

SCALE	GRADE	Mean Score	Stand. Dev.	Students
Full-Scale	4	41.03	4.93	286
-academic	5	41.65	5.46	271
self-concept	6	41.56	5.56	229
Scale-A	4	44.57	6.88	251
-motivation	5	45.57	7.18	241
for schooling	6	45.75	7.27	209
Scale-B	4	40.18	5.66	251
-Self-concept	5	40.06	6.12	241
performance	6	38.71	6.16	209
based				
Scale-C	4	38.65	5.68	286
-Self-concept	5	38.73	6.42	271
reference	6	38.54	6.78	229
based				
Scale-D	4	40.27	5.95	286
-Sense of	5	41.34	6.44	271
control over	6	42.18	6.12	229
performance				
Scale-E	4	42.10	6.32	251
-Instructional	5	43.31	6.78	241
mastery	6	42.89	7.15	209

As Table 4-4 indicates, there were significant differences in scale B **self-concept performance based** and scale D **sense of control over performance** as tested by the analysis of variance on the mean scores. The Student Newman-Keuls test of

significance indicates that on scale-B **self-concept performance based** that the students were less confident of their academic abilities at the grade six level

Table 4-4
Summary of Anova Differences for the
Entire Sample by Grade Level
(N=786)

	Source	Sum of squares	Mean squares	F Ratio	F Prob
Full-Scale -Academic self-concept	Between	61.29	30.64	1.09	.337
	Within	22004.15	28.10		
Scale-A -motivation for schooling	Between	192.94	92.47	1.91	.148
	Within	35187.71			
Scale-B -self-concept performance based	Between	292.91	146.46	4.11	.017*
	Within	24893.69	35.66		
Scale-C -self-concept reference based	Between	4.65	2.33	.06	.943
	Within	30815.60	39.36		
Scale-D -sense of control over performance	Between	474.49	237.25	6.23	.002*
	Within	29807.83	38.07		
Scale-E -instructional mastery	Between	185.99	92.99	2.05	.130
	Within	31679.81	45.39		

* significant at the .05 level

than they were at the grade five level or the grade four level. The opposite situation is indicated in scale-D **sense of control over performance** where the grade six students showed a significantly higher mean score (42.18) than the grade five (41.34) or grade four (40.27) students. The grade six students appeared to indicate they possessed more control over their school outcome than either the grade four or grade five students.

Differences by grade level were also obtained for the students when separated by race. Tables 4-5 and 4-6 present the data for the Indian students by grades four, five and six and Tables 4-7 and 4-8 present the data for the non-Indian students by grades four, five and six.

When the students were separated by race, the Indianstudents were only significantly different on scale D (**sense of control over performance**) as Tables 4-5 and 4-6 show. The grade six students with a mean score of 41.47 indicated they were more confident than the grade five students (mean score of 40.41) or the grade four students (mean score of 39.05)

Table 4-5
Summary of the mean scores and standard deviation scores for the Indian student sample by grade level (N=610)

SCALE	GRADE	Mean Score	Stand. Dev.	Students
Full-Scale	4	40.19	4.62	229
-academic	5	40.92	4.88	204
self-concept	6	41.06	5.40	177
Scale-A	4	43.98	6.82	212
-motivation	5	44.76	7.04	189
for schooling	6	45.62	7.25	167
Scale-B	4	39.61	5.62	212
-Self-concept	5	39.40	5.73	189
performance	6	38.41	6.04	167
based				
Scale-C	4	37.80	5.29	229
-Self-concept	5	37.99	5.95	204
reference	6	37.89	6.46	177
based				
Scale-D	4	39.05	5.49	229
-Sense of	5	40.41	6.03	204
control over	6	41.47	6.00	177
performance				
Scale-E	4	41.30	6.10	212
-Instructional	5	42.35	6.20	189
mastery	6	42.51	7.04	167

Table 4-6
Summary of Anova Differences for the
Indian Student Sample by Grade Level
(N=610)

	Source	Sum of squares	Mean squares	F Ratio	F Prob
Full-Scale -Academic self-concept	Between	91.36	45.68	1.87	.155
	Within	14911.22	24.41		
Scale-A -motivation for schooling	Between	253.65	126.82	2.57	.078
	Within	28140.05	49.36		
Scale-B -self-concept performance based	Between	146.41	73.20	2.19	.113
	Within	19046.84	33.45		
Scale-C -self-concept reference based	Between	3.74	1.87	.05	.947
	Within	20910.67	34.45		
Scale-D -sense of control over performance	Between	597.60	298.80	8.80	.000*
	Within	21197.78	33.94		
Scale-E -instructional mastery	Between	171.02	85.51	2.07	.127
	Within	23483.99	41.26		

* significant at the .05 level
* Student-Newman-Keuls test indicates there was a significant difference between grade 4 and grade 5 as well as between grade 4 and grade 6.

Tables 4-7 and 4-8 present the data for the non-Indian students by grade level. The ANOVA summary indicated that with the non-Indian students, the grade six students had significantly lower means scores on scale B **self-concept performance based** than did the grade four students. In the three way ANOVA (with the dependent

variables scales a-e and the independent variables of grade, sex, and school location), scale B **self-concept performance based** the main effect of grade was significant (F=3.16, p= .047) as was the

Table 4-7
Summary of the mean scores and standard deviation scores
for the non-Indian student sample by grade level
(N=176)

SCALE	GRADE	Mean Score	Stand. Dev.	Students
Full-Scale	4	44.40	5.74	57
-academic	5	43.87	6.47	67
self-concept	6	43.25	5.82	52
Scale-A	4	47.79	6.32	39
-motivation	5	48.50	6.95	52
for schooling	6	46.26	7.41	42
Scale-B	4	43.28	4.91	39
-Self-concept	5	42.46	6.90	52
performance	6	39.90	6.53	42
based				
Scale-C	4	42.05	5.96	57
-Self-concept	5	41.00	7.27	67
reference	6	40.73	7.44	52
based				
Scale-D	4	45.18	5.18	57
-Sense of	5	44.18	6.84	67
control over	6	44.61	5.92	52
performance				
Scale-E	4	46.49	5.77	39
-Instructional	5	46.83	7.65	52
mastery	6	44.40	7.48	42

2 way interaction of sex and grade (F=3.13, p=.047). The differences between non-Indian males and non-Indian females

will be further discussed in the data presented in Tables 4-13 and 4-14 .

Table 4-8
Summary of Anova Differences for the
Non-Indian Student Sample by Grade Level
(N=176)

	Source	Sum of squares	Mean squares	F Ratio	F Prob
Full-Scale -Academic self-concept	Between	35.97	17.99	.54	.583
	Within	5739.23	33.17		
Scale-A -motivation for schooling	Between	118.78	59.39	1.24	.293
	Within	6237.48	47.98		
Scale-B -self-concept performance based	Between	258.08	129.04	3.29	.040*
	Within	5092.44	39.17		
Scale-C -self-concept reference based	Between	54.90	27.45	.57	.565
	Within	8297.07	47.96		
Scale-D -sense of control over performance	Between	30.59	15.30	.41	.661
	Within	6378.40	36.87		
Scale-E -instructional mastery	Between	151.51	75.75	1.51	.226
	Within	6541.30	50.32		

* significant at the .05 level

* Student-Newman-Keuls test indicated grade 6 score was significantly lower on scale B than the grade 4 score

Research Question Three

Are there any significant differences between sexes on academic self-concept?

Tables 4-9 and 4-10 present data for the entire sample separated by sex while Tables 4-11 and 4-12 present the data for the Indian sample separated by sex. Tables 4-13 and 4-14 present the data for the non-Indian sample by sex.

The information for this question is presented first for the sample as a whole and then separated by race.

It should be noted from tables 4-9 and 4-10 that the female students with the sample as a whole, scored significantly higher on the full scale **academic self-concept** scale as well as on scale A **motivation for schooling** and scale D **sense of control over performance.** On the full academic self-concept, the female students had a mean score of 41.77 compared to the male mean score of 41.03. In the scale measuring **motivation for schooling,** the females with a mean score of 46.24 were significantly higher than their male counterparts mean score of 44.34. This trend continued as later data will show, even when the races were separated, where the females had scores showing more motivation than the males. In scale D **sense of control over performance,** the females also had a significantly higher mean score of 41.64 compared to the male mean score of 40.75. Female scores indicated they were more motivated and were more in control of their school outcomes.

Table 4-9
Summary of the mean scores and standard deviation scores for the entire sample by sex (N=783)

SCALE	Sex	Mean Score	Stand. Dev.	Students
Full-Scale -academic self-concept	Male	41.03	5.09	390
	Female	41.77	5.48	393
Scale-A -motivation for schooling	Male	44.34	7.06	350
	Female	46.24	6.98	348
Scale-B -Self-concept performance based	Male	39.99	5.62	350
	Female	39.39	6.36	348
Scale-C -Self-concept reference based	Male	38.47	6.06	390
	Female	38.83	6.47	393
Scale-D -Sense of control over performance	Male	40.75	5.95	390
	Female	41.64	6.44	393
Scale-E -Instructional mastery	Male	42.34	6.68	350
	Female	43.18	6.78	348

Table 4-10
Summary of Anova Differences for the
Entire Student Sample by Sex
(N=783)

	Source	Sum of squares	Mean squares	F Ratio	F Prob
Full-Scale -Academic self-concept	Between	107.85	107.85	3.85	.050*
	Within	21858.85	27.99		
Scale-A -motivation for schooling	Between	632.75	632.75	12.82	.000*
	Within	34343.94	49.34		
Scale-B -self-concept performance based	Between	62.35	62.35	1.73	.189
	Within	25080.04	36.03		
Scale-C -self-concept reference based	Between	25.77	25.77	.66	.418
	Within	30695.44	39.30		
Scale-D -sense of control over performance	Between	154.15	154.15	4.00	.046*
	Within	30066.34	38.50		
Scale-E -instructional mastery	Between	122.59	122.59	2.71	.100
	Within	31520.45	45.29		

* significant at the .05 level

Tables 4-11 and 4-12 present the data from the Student Attitude Measure for the Indian students separated by sex.

Table 4-11
Summary of the mean scores and standard deviation scores for Indian students by sex (N=607)

SCALE	Sex	Mean Score	Stand. Dev.	Students
Full-Scale -academic self-concept	Male	40.60	4.74	305
	Female	40.77	5.15	302
Scale-A -motivation for schooling	Male	44.07	6.91	285
	Female	45.43	7.07	280
Scale-B -Self-concept performance based	Male	39.73	5.45	285
	Female	38.61	6.10	280
Scale-C -Self-concept reference based	Male	38.02	5.54	305
	Female	33.77	6.18	302
Scale-D -Sense of control over performance	Male	40.04	5.59	305
	Female	40.36	6.21	302
Scale-E -Instructional mastery	Male	41.79	6.44	285
	Female	42.23	6.41	280

Table 4-12
Summary of Anova Differences for the
Indian Student Sample by Sex
(N=607)

	Source	Sum of squares	Mean squares	F Ratio	F Prob
Full-Scale -Academic self-concept	Between	4.30	4.30	.18	.676
	Within	14811.58	24.48		
Scale-A -motivation for schooling	Between	256.57	256.57	5.25	.022*
	Within	27494.73	48.84		
Scale-B -self-concept performance based	Between	179.13	179.13	5.36	.021*
	Within	18816.52	33.42		
Scale-C -self-concept reference based	Between	9.09	9.09	.26	.607
	Within	20816.57	34.41		
Scale-D -sense of control over performance	Between	16.01	16.01	.46	.498
	Within	21114.26	34.90		
Scale-E -instructional mastery	Between	26.36	26.36	.64	.425
	Within	23239.61	41.28		

* significant at the .05 level

It should be noted from Tables 4-11 and 4-12 that, for the Indian students, there were significant differences on scale A **motivation for schooling** and scale B **self-concept performance based**. The female students had the significantly higher scores in the motivation for learning (44.43 girls, 44.07 boys) than did their male counterparts. The male Indian students had a higher confidence in their academic performance (39.73 males, 38.61 females) compared to the female students. When the three way ANOVA was performed the significant differences continued in the

motivation scale (main effects-sex differences F=4.13, p=.043) and the academic performance scale (main effects-sex differences F=5.85, p=.016). When a MANOVA was performed with the Indian students, scale A **motivation for schooling** also showed up as significantly different for the sex differences (F=6.69 p=.010)

Tables 4-13 and 4-14 present the data for the non-Indian students when they were separated by sex.

Table 4-13
Summary of the mean scores and standard deviation scores for non-Indian students by sex
(N=176)

SCALE	Sex	Mean Score	Stand. Dev.	Students
Full-Scale -academic self-concept	Male	42.55	5.99	85
	Female	45.08	5.25	91
Scale-A -motivation for schooling	Male	45.48	7.66	65
	Female	49.60	5.51	68
Scale-B -Self-concept performance based	Male	41.12	6.26	65
	Female	42.63	6.43	68
Scale-C -Self-concept reference based	Male	40.09	7.46	85
	Female	42.35	6.20	91
Scale-D -Sense of control over performance	Male	43.31	6.54	85
	Female	45.87	5.30	91
Scale-E -Instructional mastery	Male	44.75	7.20	65
	Female	47.12	6.90	68

It should be noted, that with the non-Indian students,there were more significant differences between the males and females. The full scale **academic self-concept**, scale A **motivation for schooling**, scale C **self-concept reference based** and scale D **sense of control over performance** showed that females had the higher mean scores in each case. In scale D, **control over performance**, the non-Indian female student feels more in control of her performance, while the opposite situation was found with the Indian student where the male Indian student scored significantly higher than the female Indian student. When the three way ANOVA was performed with the non-Indian students the sex differences were significant in scale A **motivation for schooling** (main effects-sex differences F=10.96 p=.001) and scale D **sense of control over performance** (main effects-sex differences F=6.42 p=.013). When the MANOVA was performed on the data (dependent variables scales A-E, independent variables of sex, grade and school location) the sex differences were found to be significant in scale A **motivation for schooling** (F= 11.19 p=.001)

Table 4-14
Summary of Anova Differences for the
Non-Indian Student Sample by Sex
(N=176)

	Source	Sum of squares	Mean squares	F Ratio	F Prob
Full-Scale -Academic self-concept	Between	281.95	281.95	8.93	.003*
	Within	5493.25	31.57		
Scale-A -motivation for schooling	Between	565.76	565.76	12.80	.000*
	Within	5790.49	44.20		
Scale-B -self-concept performance based	Between	75.70	75.70	1.88	.173
	Within	5274.82	40.27		
Scale-C -self-concept reference based	Between	223.98	223.98	4.79	.030*
	Within	8127.99	46.71		
Scale-D -sense of control over performance	Between	288.53	288.53	8.20	.005*
	Within	21114.26	34.90		
Scale-E -instructional mastery	Between	185.69	185.69	3.74	.055
	Within	6507.12	49.67		

* significant at the .05 level

Research Question Four

Are there any significant differences in the academic self-concept of Indian students when they are located in a federally operated reserve school, a Band operated reserve school, a provincial rural school, or a provincial city school system?

Table 4-15 presents the summary of mean scores on all the scales of the Student Attitude Measure for the Indian students by school location and Table 4-16 presents the ANOVA data for the four different locales where Indian children attend school. Figure 4-4 graphically displays the differences on the Student Attitude Measure for the Indian students by school location.

Since there were four different locations of schools where the Indian children attend, the group means were further tested for levels of significance using the Student-Newman-Keuls test of significance for group means. Table 4-17 presents the results of the Student Newman-Keuls test on the group means for the full-scale and each of the sub-scales of the Student Attitude Measure.

It appears that the Indian students located in the city school systems had lower average mean scores on all the scales of the Student Attitude Measure, with significant differences in the full **academic self-concept** scale, as well as four of the five sub-scales of the instrument; **motivation for schooling, self-concept performance based, sense of control over performance** and **instructional mastery**. The students in the federally operated reserve school systems, scored significantly lower than the Band operated school systems on the **full attitude scale** as well as on scale A **motivation for schooling** and scale D **sense of control over performance**.

Table 4-15
Summary of the mean scores and standard deviation scores for Indian students by school location (N=610)

SCALE	School Location	Mean Score	Stand. Dev.	Students
Full-Scale -academic self-concept	Federal	40.20	4.95	170
	Band	41.40	4.58	235
	Rural	41.43	5.37	108
	City	38.96	5.15	97
Scale-A -motivation for schooling	Federal	43.81	6.96	170
	Band	45.75	6.38	235
	Rural	44.81	7.69	108
	City	42.95	8.10	55
Scale-B -Self-concept performance based	Federal	38.86	5.64	170
	Band	39.80	5.57	235
	Rural	39.60	6.16	108
	City	36.78	5.93	55
Scale-C -Self-concept reference based	Federal	37.47	5.80	170
	Band	38.21	5.57	235
	Rural	38.26	6.42	108
	City	37.43	6.01	97
Scale-D -Sense of control over performance	Federal	39.70	5.75	170
	Band	40.40	5.91	235
	Rural	41.48	5.83	108
	City	39.21	6.01	97
Scale-E -Instructional mastery	Federal	41.18	6.34	170
	Band	42.72	6.08	235
	Rural	43.00	6.84	108
	City	39.53	6.58	55

Table 4-16
Summary of Anova Differences for the
Indian Student Sample by School Location
(N=610)

	Source	Sum of squares	Mean squares	F Ratio	F Prob
Full-Scale -Academic self-concept	Between	506.35	506.35	7.10	.000*
	Within	14404.87	23.77		
Scale-A -motivation for schooling	Between	565.25	188.42	3.85	.009*
	Within	5790.49	44.20		
Scale-B -self-concept performance based	Between	441.50	147.17	4.46	.004*
	Within	18605.35	32.99		
Scale-C -self-concept reference based	Between	88.73	29.58	.86	.461
	Within	20825.69	34.37		
Scale-D -sense of control over performance	Between	324.65	108.22	3.14	.025*
	Within	20872.74	34.44		
Scale-E -instructional mastery	Between	682.56	227.52	5.63	.001*
	Within	22801.44	40.43		

* significant at the .05 level

* Student Newman-Keuls test information is displayed on Table 4-17 for those scales with significant differences.

When the results were subjected to a three-way ANOVA (dependent variables of scales A to E and independent variables of sex, grade, and school location) school location was significant in all the sub-scales. In regard to scale A **motivation for schooling**, the main effect, school location had an F ratio of 3.52 with a F probability of .015. The significant two-way interaction for **school motivation** was grade times school location with an F ratio 2.99 and an F probability of .007. In scale B **self-concept performance based** the 3-way ANOVA had a significant main effect for school location with an F ratio of 4.79 and p=.027. The two-way interaction of grade and school location had an F ratio of 2.23 and a p=.039. In the one-way ANOVA, there were no significant differences in scale C **self-concept reference based**, however the three-way ANOVA found significant differences in this scale with the main effect of school location having an F ratio of 3.09 with a p=.027. The two-way interaction of grade and school location had an F ratio of 2.23 with a p=.039. The 3-way ANOVA found significant differences in scale D **sense of control over performance** with a significant main effect for school location with an F ratio of 3.13 and a p=.026. Scale E **instructional mastery** had a significant main effect for school location in the 3-way ANOVA of F=5.44 with a p=.001. There was also a significant two-way interaction with grade and school location (F=2.18 p=.044) and a three way interaction of sex, grade level, and school location (F=2.28 p=.036).

In the MANOVA data, the results showed a significant difference in scale E **instructional mastery** on the three way interaction of sex, grade level, and school location with an F ratio of 2.27 with a p=.036. School location interacting with grade level was found to be significant in scale A **motivation for schooling** (F=2.74 with a p=.012), scale C **self-concept reference based** (F=2.45 with a p=.024) and scale E **instructional mastery** (F=2.45 with a p=.024). School location as a

univariate was significant in scale A **motivation for schooling** (F=3.97 with a p=.008), scale B **self-concept performance based** (F=3.49 with a p=.016), and scale E **instructional mastery** (F=4.21 with a p=.006).

It is interesting to note, that in four of the five sub-scales the Indian students in the Rural and Band setting scored higher than the standardized norms (**motivation for schooling standard score 44.23 Band mean score 45.75 Rural mean score 44.81, self-concept performance based** standard score 38.00 Band 39.80 Rural 39.60 Federal 38.86, **self-concept reference based** standard score 37.94 Band 38.21 Rural 38.26, **instructional mastery** standard score 42.55 Band 42.72 Rural 43.00). However, in the scale that measures students perception of **control over performance**, all the groups scored lower than the standardized norm.

Figure 4-4

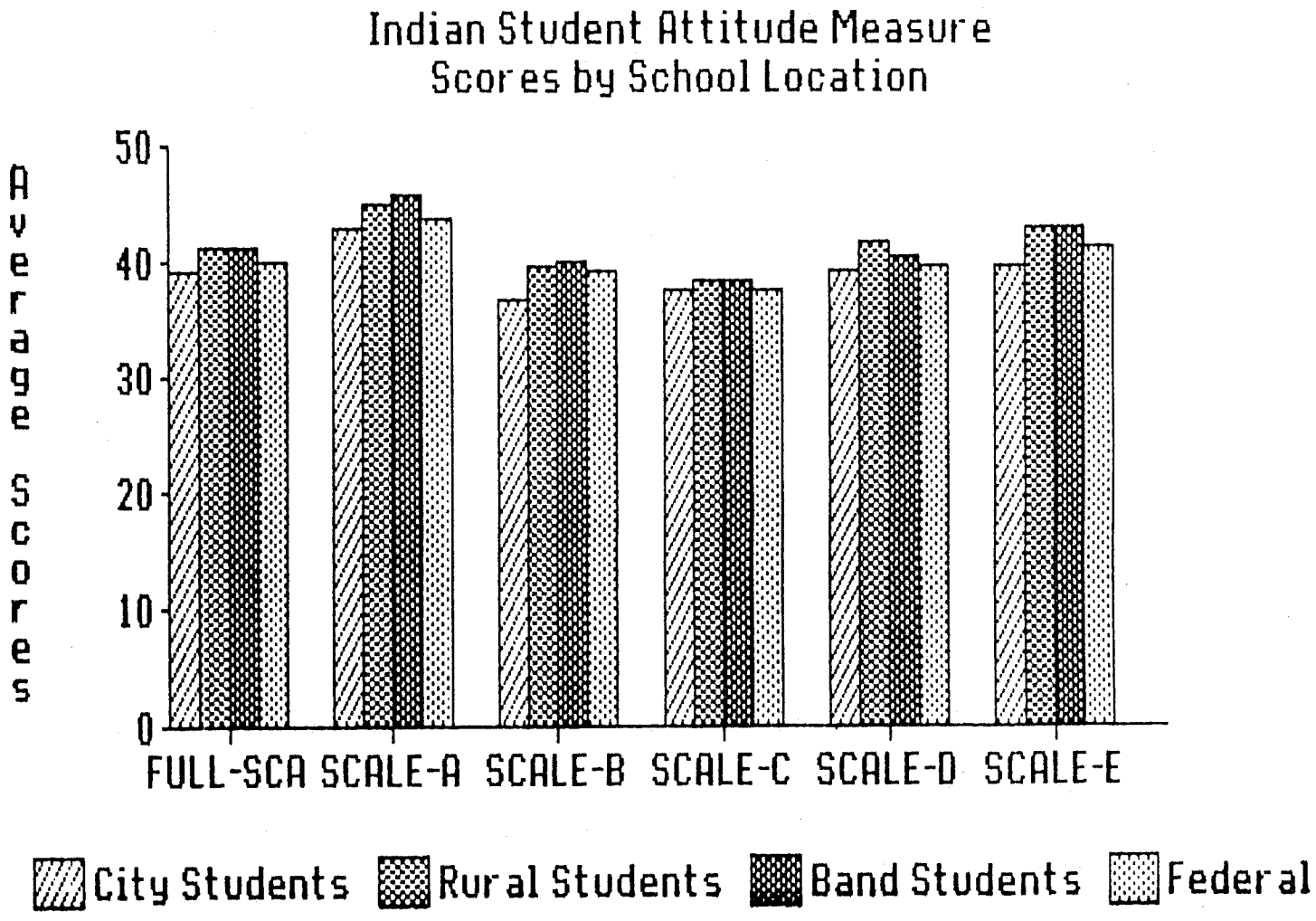
Indian Student Attitude Measure
Scores by School Location
Average Scores
50
40
30
20
10
0
FULL-SCA
SCALE-A
SCALE-B
SCALE-C
SCALE-D
SCALE-E
City Students
Rural Students
Band Students
Federal

Table 4-17
Summary of Student-Newman-Keuls test of
Significance on Indian students by School Location

Full-Scale	City	significantly lower than	Federal
-Academic	City	significantly lower than	Band
self-concept	City	significantly lower than	Rural
	Federal	significantly lower than	Band
Scale-A	City	significantly lower than	Band
-motivation	Federal	significantly lower than	Band
for schooling			
Scale-B	City	significantly lower than	Federal
-self-concept	City	significantly lower than	Rural
performance	City	ignificantly lower than	Band
based			
Scale-C	No significant differences in group means at the .05 level of significance		
-self-concept			
reference			
based			
Scale-D	City	significantly lower than	Rural
-sense of control	Federal	significantly lower than	Rural
over performance			
Scale-E	City	significantly lower than	Band
-instructional	City	significantly lower than	Rural
mastery	Federal	significantly lower than	Band

Research Question Five

Are there any significant differences for the non-Indian group, when the students are located in a rural or city school setting?

Although there were significant differences by locale for the Indian students, Tables 4-18 and 4-19 present data that indicate that although the rural based non-Indian group

had consistently higher groups means on all sub-scales there were no significant differences between the group means for the non-Indian group. When a three-way ANOVA and a MANOVA were performed, these tests also failed to reveal any significant differences in the group means for the

Table 4-18
Summary of the mean scores and standard deviation scores for non-Indian students by school location (N=176)

SCALE	School Location	Mean Score	Stand. Dev.	Students
Full-Scale	Rural	44.69	5.93	79
-academic self-concept	City	43.19	5.53	97
Scale-A	Rural	48.28	6.94	79
-motivation for schooling	City	46.57	7.63	54
Scale-B	Rural	42.15	6.29	79
-Self-concept performance based	City	41.52	6.51	54
Scale-C	Rural	41.42	7.44	79
-Self-concept reference based	City	41.13	6.48	97
Scale-D	Rural	45.15	6.29	79
-Sense of control over performance	City	44.21	5.85	97
Scale-E	Rural	46.67	7.37	79
-Instructional mastery	City	44.93	6.66	54

non-Indian group when located in a rural setting or a city setting. The group mean scores for the non-Indian group were higher than those provided with the instrument for each of

the sub-scales (**motivation for schooling** standard score 44.23 Rural 48.28 City 46.27, **self-concept performance based**

Table 4-19
Summary of Anova Differences for the
non-Indian Student Sample by School Location
(N=176)

	Source	Sum of squares	Mean squares	F Ratio	F Prob
Full-Scale -Academic self-concept	Between	98.09	98.09	3.01	.085
	Within	5677.10	32.63		
Scale-A -motivation for schooling	Between	93.18	93.18	1.95	.165
	Within	6263.08	47.81		
Scale-B -self-concept performance based	Between	12.87	12.87	.32	.575
	Within	5237.66	40.75		
Scale-C -self-concept reference based	Between	3.50	3.50	.07	.787
	Within	8348.47	47.98		
Scale-D -sense of control over performance	Between	38.94	39.94	1.06	.304
	Within	6370.05	36.61		
Scale-E -instructional mastery	Between	97.67	97.67	1.94	.166
	Within	6595.15	50.34		

* significant at the .05 level

standard score 38.00 Rural 42.15 City 41.52, **self-concept reference based** standard score 37.94 Rural 41.42 City 41.13, **sense of control over performance** standard score 42.08 Rural 45.15 City 44.21, and **instructional mastery** standard score 42.55 Rural 46.67 City 44.93)

Research Question Six

What is the relationship between the Canadian Test of Basic Skills (CTBS) scores and the student attitude scores, as measured by the Student Attitude Measure?

Table 4-20 presents the Pearson correlation coefficients between the CTBS scores and the Student Attitude Measure for the students attending reserve schools. This information was not available to the researcher from the provincial systems where the other two groups of Indian children attended. Of the 405 Indian students attending the reserve schools, 259 complete CTBS scores were available for assessing the correlation between the CTBS results and the Student Attitude Measure results. Table 4-20 shows that there was a significant correlation between the CTBS scores, the full-scale of the SAM and four of the five sub-scales of the Student Attitude Measure. The four significant sub-scales were **motivation for schooling, self-concept reference based, sense of control over performance,** and **instructional mastery.** The one sub-scale that was not found to be significantly correlated was the self-concept reference based. Similar results were found by one of the authors of the Student Attitude Measure, Lawrence Dolan when he cross validated the scales of the SAM with a cognitive abilities test (Dolan, 1983).

Table 4-20

Correlation of Canadian Test of Basic Skills with the Full scale and Five sub-scales of the Student Attitude Measure (N=259)

Variable	Full Scale	Scale A	Scale B	Scale C	Scale D	Scale E
CTBS Coef:	.1879	.1702	.0160	.1567	.2448	.1347
Signif:	.001*	.003*	.399	.006*	.000*	.015*

*significant at the .05 level

Additional Data Related to the Research Questions

Table 4-21 presents a correlation matrix that shows the relationship of the various dependent variables to each other with the non-Indian students above the diagonal and the Indian students below the diagonal. It should be noted that, in all cases, the correlations were higher with the non-Indian students than with the Indian students. However, the correlations were all significant (p=.001) with the lowest correlation, in the non-Indian sample of .56 and with the Indian sample, it was .40.

Table 4-21
Correlation Matrix for the Six Dependent Variables
(Non-Indians above the diagonal, Indians below)

	1	2	3	4	5	6
1.Full-Scale -Academic self-concept	1.0	.83	.82	.88	.84	.90
2.Scale-A -motivation for schooling	.80	1.0	.56	.60	.65	.71
3.Scale-B -self-concept performance based	.77	.51	1.0	.72	.58	.68
4.Scale-C -self-concept reference based	.77	.48	.56	1.0	.66	.73
5.Scale-D -sense of control over performance	.74	.47	.40	.48	1.0	.71
6.Scale-E -instructional mastery	.85	.65	.59	57	.54	1.0

* all correlations significant at the .001 level

Summary of Data Analysis

The 1443 possible students in grades four, five, and six were administered the Student Attitude Survey during the period January 15/89 to March 15/89. All the surveys from the Indian students were utilized, but the data from the non-Indian students was further stratified so that the total students selected for the data analysis

numbered 786 students. The summary of the data analysis will be provided for each of the six research questions.

Research Question One

Are there any significant differences between Indian and non-Indian students on the student attitude measure?

The data clearly showed there were significant differences between the Indian and non-Indian students on all scales, **full academic self-concept, motivation for schooling, self-concept performance based, self-concept reference based, sense of control over performance** and **instructional mastery.** Both groups had higher average scores on **motivation for schooling** than those provided with the standardized instrument. The largest significant difference was in the scale that measured the **sense of control over performance.**The Indian students scored significantly lower than the non-Indian students and the standardized norms on this scale provided with the instrument

Research Question Two

Are there any significant differences among the students by grade level?

For the sample of students as a whole, there were significant differences in their **performance based self-concept** with the grade six students showing significantly less confidence than the grade four or the grade five students. However, the opposite situation occurred in the scale that measured **sense of control over performance,** with the grade six students scoring significantly higher than the grade four or grade five students as tested by the Student Newman-Keuls test of multiple significant mean scores.

When the students were separated by race for this question, the only scale with a significant difference by grade for the Indian children was the one the measured **sense of control over performance.** The grade six Indian students perceived a greater sense of control over their school outcomes compared to the grade four or grade five students.

For the non-Indian students, the only scale that measured a significant difference was scale B **self-concept performance based.** This was the same as when the sample was tested together, with the grade six students possessing significantly less confidence in their performance, than the grade four students when the data from the one-way ANOVA was further tested by the Student Newman-Keuls test of significant mean scores.

Research Question Three

Are there any significant differences between sexes on measures of academic self-concept?

For the sample as a whole, females scored significantly higher on the full scale **academic self-concept, motivation for schooling** and **the sense of control over performance** Girls indicated they were more motivated for school and were more in control of the school outcomes.

When the students were separated by race, the female Indian students scored significantly higher in **motivation for schooling** but their male counterparts scored significantly higher in **performance based self-concept.**

For the non-Indian students, there were more significant differences between the male and female students. The female students scored significantly higher in **full academic self-concept, motivation for schooling, self-concept reference based** and in **sense of control over performance.**

Research Question Four

Are there any significant differences in the academic self-concept of Indian students when they are located in a federally operated reserve school, a Band operated reserve school, a provincial rural school, or a provincial city school system?

There were significant differences in the group mean scores for most of the sub-scales of the Student Attitude Measure including the **full academic self-concept, motivation for schooling, self-concept performance based, sense of control over performance** and **instructional mastery**. When the Student Newman-Keuls test was performed on those scales with significant differences, it was found that the city students were significantly lower than the students attending Band operated schools or rural provincial schools in the scales that measured **full academic self-concept, performance based self-concept**, and **the instructional mastery** scale. The city students scored significantly lower than the students in federal schools in the **full scale academic self-concept** as well as in the **performance based self-concept** scale. The students located in Band controlled schools or in rural provincial schools had the higher scores on all scales when compared to the federal or city schools.

Research Question Five

Are there any significant differences for the non-Indian group when the students are located in a rural setting or city school setting?

Although the rural non-Indian students scored consistently higher than the city students on all the sub-scales of the Student Attitude Measure, these higher mean scores were not significantly different.

Research Question Six

What is the relationship between the Canadian Test of Basic Skills scores and the student attitude scores as measured by the Student Attitude Measure?

The Pearson correlation coefficients were significant in four of the five sub-scales as well as the full scale. The four significantly correlated scales were **motivation for schooling, self-concept reference based, sense of control over performance** and **instructional mastery.**

Additional Data Related to the Research Questions

Correlations for the dependent variables, were prepared separating the students by race. The correlations were all highly significant, with higher correlation factors for the non-Indian student sample than for the Indian sample.

CHAPTER FIVE

Summary, Discussion, and Recommendations

Summary

The intent of this study was to compare the attitudes toward school of Indian and non-Indian students living in Northwestern Saskatchewan as these attitudes related to grade, school location, race and gender differences.

In a review of the literature, it became apparent that there was a significant relationship between self-perception and performance in achievement related tests (Garner & Cole, 1986, Luftig, 1983, Bruneau, 1985, Ovando, 1984, Marsh, 1984, Marsh, Relic, and Smith, 1983, Hummel and Cecil, 1983, Marsh, Parker, and Barnes, 1985, Beane, 1982). The studies, involving race differences, generally had the non-Indian students with higher self-concept scores than the Indian students. The findings of this study found similar results.

Coleman (as cited in Garner & Cole, 1986) stated that "a child's attitude related strongly to school achievement, and that his or her self-concept and sense of control over the environment - or belief in the responsiveness of the environment - affected school achievement far more than family background or school characteristics" (p.189). The onus is on educational administrators to ensure that educational programming is developed that effectively incorporates a healthy self-concept so that Indian children can regularly experience success in the academic environment. As Ovando (1984), found in his study in Alaska,

there is no reason that academic achievement cannot be compatible with Native cultures rather than at cross purposes with Native cultures.

Garner and Cole (1986) pose the conceivability that locus of control may be the basis for building a healthy self-concept (p.202). They state that "a child cannot have the will to learn if he or she perceives school success and failure to be beyond his or her control" (p.203). It was evident in this research and in the McDonald-Jacobs (1988) research, that the Indian children had some problems in their perceptions of being in control of their performance and school outcomes in comparison to their non-Indian counterparts. The comparisons of the Indian children in the various school locations (Federally operated reserve schools, Band operated reserve schools, Rural provincially operated schools, and City provincially operated schools) for this study found some significant differences in this area. The children in Band operated schools generally had significantly higher self-concept scores than their Indian counterparts in the Federal or City school systems.

The subjects for this study were students in grades four, five, and six located from five Federally operated reserve schools, six Band operated reserve schools, five Rural provincially operated schools, and from six city schools. Of the 1443 possible students, the data from 788 students was used for this study. There were 610 Indian children in the study and 176 non-Indian children. The Student Attitude Measure with the scales including **motivation for schooling. academic self-concept performance based, academic self-concept reference based, sense of control over performance,** and **instructional mastery** were administered to the students during the period January 15/89 to March 15/89. In addition, the Canadian Test of Basic

Skills data from the reserve attending students was obtained at that time so as to correlate achievement data with the Student Attitude Measure data.

After scoring the questionnaires, the information was analyzed using the SPSS computer program available on the mainframe at the University of Saskatchewan. Analysis of group means was done primarily by use of one-way ANOVAs with use of the Student Newman-Keuls test for further testing those variables containing multiple means. As a further check on the independent variables of gender, school location, and grade, the information was also subjected to three-way ANOVAs and MANOVAs.

Discussion of Results

The following discussion of the results of the research study will be done by each research question. At the end of the discussion the researcher will summarize the results and conclusions from this study.

Research Question One

Are there any significant differences in student attitudes between Indian and non-Indian students as measured by the Student Attitude Measure?

The data clearly showed there were significant differences between the Indian and non-Indian students with the non-Indian students having the higher **academic self-concept scores, motivation for schooling, sense of control over performance** and **instructional mastery**. These results were expected in that McDonald-Jacobs (1988) found similar results with her

study of Mohawk children in Southern Ontario using the same measuring instrument. Other researchers such as Tempest (1985), Luftig (1983), Rampaul, Singh and Didyk (1984) Martig and DeBlassie (1973) found similar results with Native children having significantly lower self-concept scores than their non-Indian counterparts. Educational administrators must become aware of the significantly lower academic self-concepts of Indian children so that programming can be made more effective for this group in all our schools.

Research Question Two

Are there any significant differences in student attitudes among the students by grade level as measured by the Student Attitude Measure?

When the information from all the students was analyzed as an entire group, significant differences were found in **performance based self-concept,** with the grade six students having the significantly lower scores. However, the grade six students had the significantly higher scores on the scale that measured **sense of control over performance.**

After the information was separated by race, it was established that the Indian students only differed significantly on the **sense of control over performance** with the grade six students having the significantly higher score. For the non-Indian students, **self-concept performance based** was found to be significantly different with the grade six students possessing significantly less confidence than the grade four students as tested by the Student Newman-Keuls test.

The results of this study were somewhat different from the McDonald-Jacobs study. For the sample as a whole, McDonald-Jacobs found that the scores increased significantly by grade level. The same results were found for the **sense of control over performance** but not for the other measure. For the Indian group by themselves, McDonald-Jacobs found no difference in grade levels, while this study found that with the Indian group the **sense of control over performance** was significantly higher for the grade six students. In the case of the non-Indian group, McDonald-Jacobs found significant differences between the grades with the grade six students having the higher scores.

This researcher did not find the differences with the non-Indian students except in a scale McDonald-Jacobs did not use, that of **self-concept performance based,** where this researcher found the grade six students had significantly lower scores than the grade four students. It appears that from these two studies using the same instrument the data confirm that differences between grades are negligible and in the case of the non-Indian student somewhat in conflict. Martig and DeBlassie (1973) in a study of Indian and non-Indian primary children did not find significant differences between grade levels.

Research Question Three

Are there any significant differences between male and female students on measures of the Student Attitude Measure?

For the sample as a whole the females scored significantly higher on the **full academic self-concept, the motivation for schooling** and **the sense of control over performance.** When the information was separated by race, the female Indian students scored significantly higher in **motivation for schooling,** but their male counterparts scored significantly higher in **self-concept performance based.** In the non-Indian group, the female students scored significantly higher in **the full academic self-concept, motivation for schooling, self-concept reference based** and in **sense of control over performance.**

The data in this study, found that there were differences in the races with the non-Indian females scoring consistently and significantly higher than the males. Both female Indian students and female non-Indian students scored significantly higher in their motivation to schooling than their male counterparts. With the non-Indian group, the higher self concept scores were in three other measures with the females having the higher scores. In the McDonald-Jacobs study the scores on the scales used were higher for the females in all cases but there were no significant differences.

Other researchers such as Marsh, Smith and Barnes (1985) Martig and DeBlassie (1973) Smith (1988) and Skaalvik (1983), found in their research, that girls have generally higher self-concept scores than their male counterparts. This study would agree that there are significant differences with the non-Indian students but that these were not as pronounced in the case with the Indian students.

Research Question Four

Are there any significant differences in the academic self-concept of Indian students when they are located in a federally operated reserve school, a Band operated reserve school, a provincially operated rural school, or a provincially operated city school system?

There were significant differences in the group mean scores for most of the sub-scales of the Student Attitude Measure including the **full academic self-concept, motivation for schooling, self-concept performance based, sense of control over performance** and **instructional mastery.** When the Student Newman-Keuls test was performed on those scales with significant differences, it was found that the city students were significantly lower than the students attending Band operated schools or rural provincial schools in the scales that measured **full academic self-concept, performance based self-concept**, and **the instructional mastery** scale. The city students scored significantly lower than the students in federal schools in the **full scale academic self-concept** as well as in the **performance based self-concept** scale. The students located in Band controlled schools or in rural provincial schools had the higher scores on all scales when compared to the federal or city schools.

The data from this research question indicated that for these students, the location of the school was quite significant. Indian students attending Band operated schools or Rural provincial schools had higher academic self-concepts than their counterparts in Federal schools or in the City school systems. As was found in the McDonald-Jacobs (1988) study, the Indian students in the Federal

schools scored significantly lower than their rural provincial counterparts. However, the students scoring the lowest of all four groups, were the Indian students located in the city schools. It would appear that these students are at the greatest risk with the lowest academic self-concepts of the four groups.

The Indian students in the rural provincial and Band controlled schools scored higher than the norms provided with the Student Attitude Measure except in the **sense of control over performance.** This perception of being in control of ones school outcome is of paramount importance in having a healthy self concept (Garner & Cole, 1986). Indian students in these two locations may have much healthier self-concepts than their counterparts in the Federal and City schools, but they still do not possess the same level of self-concept as their non-Indian counterparts in the provincial schools. More concentrated effort still must be made in the programming for these children. The trend toward devolution by the federal department of Indian Affairs of all educational programming appears to result in healthier academic self-concepts of children as evidenced by the students in this study.

At the same time however, there are serious concerns for those children who are attending the city school systems. These children have indicated academic self-concepts that are of major concern to this researcher. Intervention programs are not always that successful, but more research in this area may be required to provide the kind of programming that results in higher self-concepts for Indian children and results in greater academic success.

Research Question Five

Are there any significant differences for the non-Indian group when the students are located in a rural setting or city school setting?

Although the rural non-Indian students scored consistently higher than the city students on all the sub-scales of the Student Attitude Measure, these higher mean scores were not significantly different. The norms provided with the Student Attitude Measure have the reverse situation with the rural students having lower scores than the suburban city students. The situation for this part of Saskatchewan is different however with the non-Indian rural students having the higher self-concept scores.

Research Question Six

What is the relationship between the Canadian Test of Basic Skills scores and the student attitude scores as measured by the Student Attitude Measure?

The Pearson correlation coefficients were significant in four of the five sub-scales as well as the full scale. The four significantly correlated scales were **motivation for schooling, self-concept reference based, sense of control over performance** and **instructional mastery.**
Dolan (1983), one of the authors of the Student Attitude Measure, found the same results in a cross-validation study with the one scale measuring performance self-concept not being correlated with the Student Attitude Measure and a Cognitive Abilities Test (p.300). The correlation on this one exception became significant for the higher grades in the study but not for the grade five

students. Since the correlations were highest with the scales that measured **motivation for schooling, self-concept reference based, sense of control over performance** and **instructional mastery** then perhaps an abridged version of the School Attitude Measure could be useful for school administrators in determining students that may be at risk and requiring special intervention or programming.

Many researchers such as Beane (1982), Skaalvik (1983), Marsh, Parker and Smith (1983), Smith (1988) and Marsh, Parker and Barnes (1985) found correlations between academic achievement and academic self-concept. The results of this study would indicate that there is a significant correlation between the Student Attitude Measure and The Canadian Test of Basic Skills.

Conclusions

Following is a summary of the conclusions as a result of the study of student attitudes for students in Northwestern Saskatchewan.

1. There are significant differences between Indian and non-Indian students in the area of academic self-concept with the non-Indian students having the higher academic self-concepts.

2. Differences on academic self-concept by grade level produced minor differences and with conflicting results with other studies. It can be concluded that differences from grade to grade are not a major concern with either the Indian or the non-Indian student.

3. Gender differences were evident in that the females were found to be more motivated that males for both the Indian and the non-Indian groups. There were more measures of academic self-concept that were different for the non-Indian group than for the Indian group with the females having the consistently higher scores.

4. For the Indian students, the location of the school was linked to significant differences in academic self-concept. Indian students attending Band operated reserve schools or Rural provincial schools had the students with the highest self-concept scores compared to the students in the Federal schools or the City schools. The students in the city schools consistently scored lower than any of the other three groups.

5. With the non-Indian students, there were no significant differences between the Rural and City students even though the Rural students scored consistently higher on all measures of academic self-concept. School location does not have a significant effect on the academic self-concept of non-Indian children.

6. There is a significant correlation between academic performance on standardized tests and academic self-concept as measure by the Student Attitude Measure for the Indian children in this study. It appears that there may be some definite value for administrators in the use of self-concept measures as it correlates with academic performance in standardized tests.

Implications of Research

This research study substantiated and broadened the information on the McDonald-Jacobs' study of academic self-concepts of Indian children. As was found in the McDonald-Jacobs study, there are significant differences between the academic self-concepts of Indian and non-Indian children. Administrators, curriculum developers and educators generally involved with Indian children should be cognizant of these differences so as to minimize these differences in the delivery of educational programs. As Bayer (1986) states "affective experiences have been shown to influence student self-concept as well as to influence and predict student achievement" (p.131). This approach to the delivery of education for Indian children could dramatically improve the outcome and academic success for Indian children. Changes in delivery involves teachers at the school, administrators in the school as well as central office, curriculum writers, school boards, parents and particularly the Indian students themselves.

Many changes are occurring in the education scene for education in Saskatchewan. Reserve schools are increasingly being controlled at the community level with the proposed final devolution of all federal school scheduled for September 1, 1991. This trend can only improve the educational delivery of programs at the community level and result in children feeling more positive about their academic self-concepts.

Administrators in city schools probably should have some of the greatest concerns since it appears the Indian students in their schools have the most negative academic self-concepts of the four Indian groups studied. Perhaps

intervention programs and major changes in approach are necessary to improve the academic self-concepts and performance of Indian children in their jurisdictions. The increasing urban Indian population requires drastic changes to the educational approach for Indian children in city schools if the information from this study is any guide. Affirmative actions programs mandated by the province may be a partial solution. Greater involvement is required by the parents of Indian children attending city schools. Approaching education from an affective manner rather than always from a cognitive manner could be of immense benefit to Indian children in all school locations.

Recommendations for Further Study

During the course of research for this study, this researcher realized that there were many other areas of study of academic self-concept that would broaden the understanding of educating Indian students.

1. Would the trends evidenced in this study and the McDonald-Jacobs study be evident in the higher or senior grades? The Student Attitude Measure was developed for use for students from grades four to twelve, but this study and the McDonald-Jacobs study with Indian children involved only grades four, five and six children.

2. Is there a significant link with parental involvement in the school and the academic self-concept of Indian children? This study would seem to suggest that there is a significant relationship, since the students in the Band controlled reserve schools had the significantly higher academic self-concept scores than the students in federally operated reserve schools. In off-reserve schools,

particularly city schools, would those schools that are classed as community schools, result in significantly different academic self-concepts for Indian students?

3. Are there significant differences in the self-concepts of Indian children when teachers approach education from an affective manner rather than the traditional style? Researchers such as Zeeman (1982) and Purkey and Novak (1984) have found this with non-Indian students but could this also be duplicated for students of Indian ancestry.

4. Since the Saskatchewan Human Rights Commission is requiring that provincial school jurisdictions have a minimum percentage of Indian staff if they have significant numbers of Native, is there a significant relationship between the self-concept of students and having a teacher of Native ancestry? Role models are felt to be very important to the self-esteem of Indian children but is there a significant relationship between students having a Native teacher and students self-concepts?

5. Although this study involved a large number of students in Northwestern Saskatchewan, would the results be similar in other areas of the province? This study involved five federal schools, six Band operated schools, five rural provincial schools and six city schools. The six city schools were from only one city. Would the results be different if other cities were involved?

6. Is there a significant relationship between the self-concept of the student and the self-concept of the teacher? Purkey and Novak (1984) suggest that before teachers are effective and 'inviting' they themselves must have healthy self-

concepts (p.42). Would those teachers them who offer a caring and supporting atmosphere contribute significantly to children having higher and more positive self-concepts than those teachers who do not regard themselves as effective and caring professionals? The shaping and molding of children's self-concepts is an on-going process that requires that teachers positively enrich the children that they come in contact with whether they be Indian or non-Indian children.

7. There are other important variables that were not involved in this study. Two very important variables are the age of students (age-grade misplaced) and the mobility of the students. Would these important factors be correlated to academic self-concepts and academic performance?

Recommendations for Practice

This study has resulted in some interesting data that could have a significant beneficial impact on the education of Indian children. The following suggestions and recommendations are only that, and the educator or administrator must be aware that other factors are always present when one is dealing with the human element. Further research and studies are necessary on the educational practices affecting Indian children located on a reserve or a provincial school.

Recommendations for Principals

The findings of the study would suggest that there is a strong relationship between how students view themselves in an academic setting and how they perform in school at the grades four to six level. Most teachers are aware that children must feel good about themselves in order to excel and perform the

necessary academic tasks in a school environment. Activities and approaches should be used that constantly enhance the positive image of the child so that they feel they are worthwhile, contributing, successful members of the school environment. Workshops using Purkey and Novak's' theme of 'Inviting school success' should be a must when teaching Indian children. In addition to increasing academic performance as Bayer (1986) and others suggest, there are other social benefits for these children and society as a whole.

Since the children in city school settings indicated the most negative academic self-concepts of all the groups studied, it may be worthwhile to begin special intervention programs for those students. Many of the factors contributing to the negative self-concept scores may be caused by factors that are outside the control of the school authorities; however, the onus is still on the educational administrator to endeavor to correct and reverse as many of these negative attitudes as possible. Providing nutritional breakfasts for hungry students may not be the proper jurisdiction of the school, however, educating a hungry student undoubtedly provides a serious challenge for the school administrator. Making demands on students that cannot be realistically met will further the child's negative self-concept problem. Expectations should remain high, but they must be realistic. Moving from one school to another is rarely a choice of the students. Administrators and teachers must accommodate these children and provide an 'inviting' and caring atmosphere that respects the child's background. The extra help and care required by these children requires the support of many people. The teacher, is by far the most important to ensuring the Indian student leaves the academic environment with a positive feeling that going to school can be an enriching and exciting experience.

Recommendations for School Boards

Since the Native population is increasing in Saskatchewan by a greater percentage than any other minority group, school boards must plan for the provision of programs that effectively meet the needs of this minority group. Rather than being forced to provide affirmative action programs, school boards should begin programs that provide the Indian children with effective role models and programs that provide for pride in the Indian heritage and culture of aboriginal peoples. Cultural awareness programs should be part of the professional development programs of all school boards that have significant Indian populations in their schools. Curriculum materials should be sought that will enhance the positive feelings that children develop in the school environment. In order to effectively meet the needs of Indian children, school boards may have to enlist the help of Native organizations and cultural groups. Help to meet children's needs in other areas such as nutrition may also be required in city schools. School boards claiming they simply cannot get involved in areas that are not their proper responsibility, are not truly concerned with meeting the educational needs of all the children in their jurisdiction. The funding may indeed have to come from another source, but school boards can be very effective in ensuring that those services are provided for the children attending their schools.

Recommendations for Provincial Governments

Provincial governments and agencies can do a lot to facilitate the effective education of Native children in the schools of Saskatchewan. The provincial department of education has begun to produce curriculum materials that reflect

an enhanced image of the Indian's contribution to Canadian society. More materials are required that reflect the important contribution of Native people in our province and our country.

Other support is also required to ensure that the Indian people are able to take their rightful place in Canadian society. Measures meant to correct the economic situation of Indian people must be taken. The children suffer in many areas, of which their education is only one area. Leadership on behalf of the provincial government can ensure that school boards are able to meet the needs of children in their care, even if there are jurisdictional problems.

Recommendations for the Federal Government

Although there are areas in this study that fully support the complete devolution of all federally administered schools, this researcher would still caution that the Indian Bands be adequately prepared and supported in the takeover of educational programs. The takeover of programs appears to produce children who report higher academic self-concepts and as such the transfer of all remaining programs should be pursued. However, setting unrealistic guidelines for turning over programs can be detrimental to a very good cause.

Jurisdictional problems will always be present when Indian students are involved. Nevertheless, the federal government should enter into cost-sharing of programs in curriculum and program planning that are unique and beneficial to Indian children. The development of these programs should not be delayed because there appears to be a lack of guidelines to approach programming for Indian children resident on a reserve. Leadership in Indian education must be

taken by government personnel where the main concern should be: will this program result in the improvement of Indian education?

Concluding Statement

This study was meant to substantiate and broaden the information produced by McDonald-Jacobs in her study on the attitude differences between Indian and non-Indian children. In addition to confirming these differences, this study found that the reported academic self-concept differences of the children in this study favored the attendance of Indian children in Band operated schools and Rural provincial schools as compared to Federal schools or City schools. The children, indicating the most negative academic self-concepts, were those children in the city provincial schools. Immediate steps should be taken with this group to reverse this trend and ensure that this important minority group be exposed to the kind of educational programming and atmosphere that will ensure successful educational experiences. Changes are slowly occurring on the provincial scene, but intervention programs may be required for those children who are performing very poorly and who will likely drop out of the school system well before they reach high school.

In-service training and additional resources may be required to reverse the trend in the city schools. However there are indications that all teachers could benefit from training that more effectively delivers educational programming to Indian children. Educational experiences must enhance children's self-concepts so that children view themselves as important contributing members of Canadian society.

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APPENDIX A

Student Attitude

Measuring Instrument

Comprehensive
Assessment Program

School Attitude Measure 4|6

Project Authors
Lawrence J. Dolan
University of Rochester
Marci Morrow Enos
Siegel Institute for Communicative Disorders,
Michael Reese Hospital

Program Authors
John W. Wick
Northwestern University
Jeffrey K. Smith
Rutgers University

AMERICAN TESTRONICS
P. O. Box 2270
Iowa City, Iowa 52244
1-800/553-0030

How do you feel about the following statements?

Always agree
Usually agree
Sometimes agree
Never agree

Sample:
I would rather do schoolwork alone than with a group of other students. O O O O

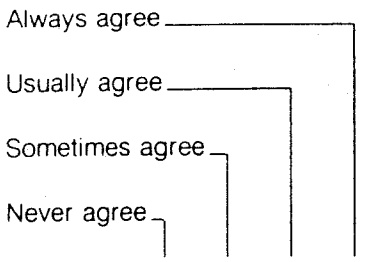
---

1. I try to volunteer for as many things as I can. O O O O
2. Teachers are able to make most subjects interesting. O O O O
3. I wish my classroom work were better than it is now. O O O O
4. I think school is the best place for me to learn. O O O O
5. My teacher notices me only when I do something wrong. O O O O
6. I'd rather start new schoolwork than finish what I'm working on. O O O O
7. At times I feel like not going to school because I have more important things to do. O O O O
8. I'm very proud of the work I am doing in school. O O O O
9. Both students and teachers like my ideas. O O O O
10. I work hard at school to please my parents, not myself. O O O O
11. I usually understand what the teacher wants us to do. O O O O
12. It is not worth the trouble to go to school after high school. O O O O
13. I get worried about tests and homework. O O O O
14. I don't like to tell my grades to others in my class. O O O O
15. I am the one who makes improvements in things at school. O O O O

How do you feel about the following statements?

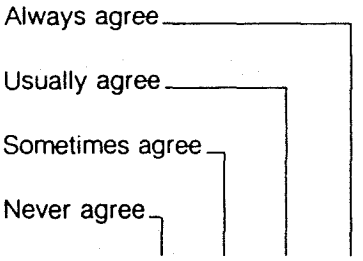
	Always agree	Usually agree	Sometimes agree	Never agree
16. I don't remember much of what I learned last year.	O	O	O	O
17. I look forward to each new school year.	O	O	O	O
18. If I keep doing my schoolwork as I am now, I'll have an easy time with schoolwork later.	O	O	O	O
19. When I am with my friends, I do what they want to do, not what I want.	O	O	O	O
20. Sometimes I fail a test that I thought I had passed.	O	O	O	O
21. I get excited about school and look forward to it every day.	O	O	O	O
22. I get the feeling that I never do good enough work in class.	O	O	O	O
23. My parents want me to do better on my schoolwork than other students in my class.	O	O	O	O
24. I cross my fingers for luck before I take a test.	O	O	O	O
25. As soon as the teacher starts talking, I begin to daydream.	O	O	O	O
26. After I've been absent, I always try to make up my schoolwork.	O	O	O	O
27. Knowing my past school grades, I can't expect to get the grades I want.	O	O	O	O
28. When I get my report card, I want to show it to others.	O	O	O	O
29. I'm happy with my schoolwork and wouldn't want to change it at all.	O	O	O	O
30. When my homework is too hard, I just want to give up.	O	O	O	O

How do you feel about the following statements?



1. I wouldn't come to school if my parents didn't make me.
2. Teachers simply expect too much from me in school.
3. When I leave for school, I can tell if I am going to have a good day.
4. I don't like to spend time on hard jobs at school.
5. I want to get as much education as I can.
6. I learn things very quickly in school.
7. Compared to other students in my grade, I don't think I am very smart.
8. Only the students that teachers like get good grades.
9. I have to hurry to finish my work.
10. Going to school is not very important in getting a good job.
11. I don't feel very comfortable speaking in class.
12. I'm proud to tell my parents about the work I do in school.
13. Most of the things I try to do in school turn out wrong.
14. I do good work only in my easy subjects.
15. I really don't like school and want to quit as soon as I can.

How do you feel about the following statements?



46. I make very few mistakes on my schoolwork.
47. Both my parents and teachers believe I can be a good student in future years.
48. My parents have to help me with my homework or it won't get done.
49. School is hard sometimes, but I know that it's well worth my trying.
50. I have to force myself to do schoolwork because there are so many other things I want to do.
51. I often think that I'm going to fail in school.
52. My parents feel I will be able to do very well in high school.
53. If I don't like the teacher, I don't want to do anything.
54. I can tell when I am doing good work in school.
55. Even if my teacher did not give us any schoolwork, I would do schoolwork on my own.
56. When I want to, I can learn most things taught in school.
57. Older students look to me for good ideas.
58. My parents just don't understand how bad it is in school.
59. Good teachers are the ones who don't make you do much work.
60. Even when I am pleased with my grades, nobody else is.

How do you feel about the following statements?

	Never agree	Sometimes agree	Usually agree	Always agree
61. When I work with other students on a school project, I contribute a lot.	O	O	O	O
62. I can never please anybody with my schoolwork.	O	O	O	O
63. I don't know when my teacher will be angry with me.	O	O	O	O
64. I usually have enough time to finish my work.	O	O	O	O
65. I have to admit that most schoolwork is boring for me.	O	O	O	O
66. My teacher feels that I am one of the top students in my class.	O	O	O	O
67. School is a place where my ideas are really accepted.	O	O	O	O
68. I sometimes don't pay attention in school because the work is too hard.	O	O	O	O
69. There is no way that a student like me will get good grades.	O	O	O	O
70. My friends think that I am not as smart as others my age.	O	O	O	O
71. It's hard for me to memorize things for school.	O	O	O	O
72. I think I'll be at the top of my class in high school.	O	O	O	O
73. Nothing I can do for myself in school will make school any better.	O	O	O	O
74. It's good to have tests in school so you know what you've learned.	O	O	O	O
75. I'm sure school will help me have a better life.	O	O	O	O

APPENDIX B

Correspondence Endorsing the Study

UNIVERSITY OF SASKATCHEWAN

COLLEGE OF EDUCATION

PARTMENT OF EDUCATIONAL

ADMINISTRATION

306-966-7619

SASKATOON, CANADA

S7N 0W0

December 15, 1988

Directors of Education
North Western Saskatchewan

Re: Study of Attitudes of Cree Indian Students
in the Schools of North Western Saskatchewan

Mr. Merv Pentelichuk who is known to many of you as superintendent with the Department of Indian Affairs, North Battleford Region, is currently on leave with the Department of Educational Administration for the 1988-89 school year.

I am writing to request your cooperation with Merv's comparative study involving Indian students attending federal, band-operated and provincial schools. The study involves an attitude survey of students in grades four to six. It does not take a long time to complete, and Merv would be available to meet with teachers to discuss the details of administering the questionnaire.

The results of this study should be of great value to school administrators and policy makers and should provide better opportunity for ensuring that Indian students receive the highest possible quality education.

Merv will be in touch with you to expedite arrangements. Thank you in anticipation of your cooperation and assistance.

Sincerely,

Patrick J. Renihan
Professor
Department of Educational
Administration

PJR:jz

The Biggar School Division No. 50

PROVINCE OF SASKATCHEWAN

TELEPHONE 948-3348

BIGGAR, Saskatchewan
Box 310, S0K 0M0

January 9th, 1989

Mr. M. Pentelichuk
10713 Meighen Cres.
North Battleford, Sask.
S9A 3K9

Dear Mr. Pentelichuk,

Please be advised that we have approved the use of your school attitude survey for grades 4, 5 and 6 in Cando School.

Please contact the principal Mr. Morris Brizinski (937-3934) to make the appropriate arrangements.

Yours truly,

R. B. Arnold
Director of Education

cc: Mr. M. Brizinski, Principal

NORTH BATTLEFORD CATHOLIC SCHOOLS

S.L. DIGOUT Director of Education
G.P. BASKEY Secretary Treasurer

9301 - 19th Ave.
North Battleford, Saskatchewan S9A 3N5
Telephone: 445-6158

December 15, 1988

Mr. Merv Pentelichuk
10713 Meighen Crescent
North Battleford, SAsk.
S9A 3K9

Dear Mr. Pentelichuk,

This letter will confirm approval for you to administer a school attitude survey to students in grades four to six in our school division as per your recent request.

I have attached a copy of a memo regarding your research that has been sent to all our principals and vice-principals.

In keeping with Board policy, I ask that you submit a resume describing the project and your findings upon completion of your research.

May I suggest that you contact our school principals directly to arrange for the administration of your survey. Meanwhile, if you require further information, please advise at your convenience.

Sincerely,

S. L. Digout
Director of Education

SLD:ml
cc Co-ordinators

UNDERSTANDING YESTERDAY
REPARING FOR TOMORROW

North Battleford School Division No. 103

Room 161, 1791 - 110 Street, North Battleford, Saskatchewan, S9A 3E7
Telephone (306) 445-3827

December 21, 1988

Merv Pentelichuk
Dept. of Indian Affairs
Box 1026
North Battleford, Saskatchewan
S9A 2Z4

Dear Merv:

I am pleased to inform you that the Principals of our elementary schools have agreed to co-operate with you as you complete an attitude survey of students in grades 4-6 as part of your studies.

The following suggestions were made by our group:

- they would like to see the results for their schools;
- they would like to see the overall conclusions;
- they would like to have as much warning as possible.

Please be in direct contact with Principals as you see fit. The names and locations are enclosed.

Please accept our best wishes for a successful study.

Sincerely,

M. F. Grosse
Director of Education

MFG/hs

Encl.

cc Pat Renihan

December 22, 1988

Principal
Ahtahkakoop School
Chamakese Education Centre
Se-Se-Wa-Hum School
Witchekan Lake School

Your file / Votre reference

Our file / Notre reference E. 4700 - 1

Re: School Attitude Measurement
by Merv Pentelichuk

Enclosed is a copy of the above for your information.

I request that you give Mr. Pentelichuk your co-operation as per his enclosed letter.

Reports of Mr. Pentelichuk's study will be made available to the participating schools when completed.

Don Burt
Superintendent of Education
DIAND - Shellbrook District
P.O. Box 790
SHELLBROOK, Saskatchewan
S0J 2E0

cc: M. Pentelichuk

TURTLEFORD SCHOOL DIVISION No. 65
PROVINCE OF SASKATCHEWAN

DIRECTOR OF EDUCATION A. W. KING | SECRETARY-TREASURER G. C. GERWING | SUPERINTENDENT OF INSTRUCTION R. V. MOKELKY

TELEPHONE: 845-2150

Box 280
TURTLEFORD
SASKATCHEWAN
S0M 2Y0

December 16, 1988

Mr. Merv Pentelichuk
10713 Meighen Crescent
North Battleford, SK
S9A 3K9

Dear Merv:

This is to confirm approval to administer a school attitude survey to students in grades 4-6 at Turtleford School as part of your masters degree requirements.

Good luck!

Sincerely,

Wayne

A. Wayne King
Director of Education

AWK:dg

cc Henry Czarnota - Principal
Vance Mokelky - Superintendent of Instruction
File

BLAINE LAKE SCHOOL DIVISION NO. 57
of Saskatchewan

January 9, 1988

Mr. Merv Pentelichuk
10713 Meighen Crescent
NORTH BATTLEFORD, Saskatchewan
S9A 3K9

Dear Merv:

Forgive me for not responding to your request sooner but it got mislayed in my paper shuffle.

Of course we would be pleased to let you do your study on student attitudes in Marcelin and Leask Schools.

Please contact the following to arrange for your visit to the schools:

(a) Mr. George Ridley, Principal
Leask School
(306) 466-2206

(b) Mr. Bernie Martineau, Principal
Marcelin School
(306) 226-2081

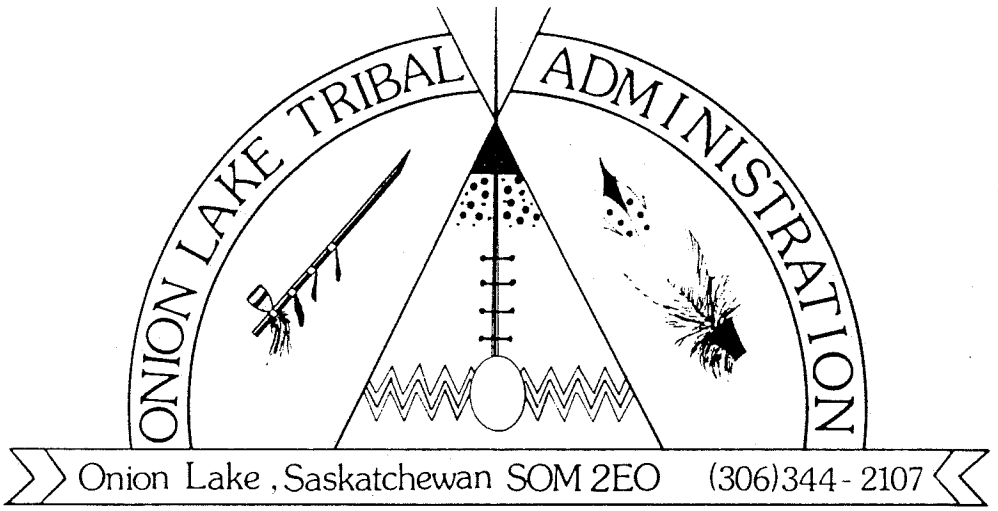
We do request a copy of the results of your study.

Best wishes.

Sincerely,

Wayne A. Smith
Director of Education

WAS/bc



January 19, 1989

Mr. Pentelichuk

RE: Your request to conduct research

I am pleased to inform you that the Education Authority has considered your request and has authorized you to conduct your questionnaire, providing that you are prepared to meet with them at a later date to discuss the results of your findings. Please make arrangements for dates and times to administer the questionnairewith the school Principal, Mr. Terry Clarke.

In your covering letter you indicate that you would be requesting classroom teachers to administer the questionnaire. I believe that it would be better if you conducted this task. By doing it yourself you can ensure that the questionnaire is administered uniformly and thus ensure the validity of your results.

I am looking forward to seeing you when you visit the schools.

Sincerely

Syd Pauls

Syd Pauls
Sup't. of Education

APPENDIX C

Correspondence Initiated

by the Researcher

10713 Meighen Crescent
North Battleford, Sask.
S9A 3K9

Mr. Wayne Smith
Director of Education
Blaine Lake School Division #57
Box 400
Blaine Lake, Saskatchewan
S0J 0J0

Dear Mr. Smith:

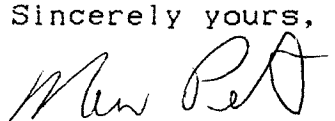
As you are aware, I am on educational leave for the 1988-89 school year. I am taking graduate classes in educational administration at the University of Saskatchewan.

I would like to do a comparative study involving Indian students attending federal, band-operated, and provincial schools. The study involves comparing several variables as to possible correlations that may be helpful in assisting Indian students in the educational environment.

If at all possible, I would like to administer a school attitude survey to your grades four to six students (at Marcelin and Leask Schools) in the latter part of January, 1989. The questionnaire contains 75 items that are read to the children. Each child indicates on the instrument his agreement or disagreement with the question. Admistration time is approximately 30 minutes. The names of the children are not required. I will require certain information of the students as the questionnaires are picked up or handed in. As the analysis involves differences between boys and girls, that information needs to be indicated discreetly. In addition I will need to know whether the student is of native or non-native ancestry. This information should also be indicated discreetly on the questionnaire as it is picked up from the student. It is my intention to meet with the teachers at a convenient time to discuss the details of administering the questionnaire since it would be more comfortable for the students if their classroom teacher carried out that task.

When the study is completed, I would be very happy to discuss the results of the study with the board or any of the staff who may be interested. Your concurrence in assisting me with the project will be very much appreciated.

Sincerely yours,



Merv Pentelichuk

10713 Meighen Crescent
North Battleford, Sask.
S9A 3K9

Mr. Don Burt
Director of Education
Department of Indian Affairs
Box 790
Shellbrook, Saskatchewan

Dear Don:

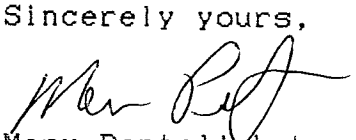
As you are aware, I am on educational leave for the 1988-89 school year. I am taking graduate classes in educational administration at the University of Saskatchewan.

I would like to do a comparative study involving Indian students attending federal, band-operated, and provincial schools. The study involves comparing several variables as to possible correlations that may be helpful in assisting Indian students in the educational environment.

If at all possible, I would like to administer a school attitude survey to your grades four to six students in the latter part of January, 1989. The questionnaire contains 75 items that are read to the children. Each child indicates on the instrument his agreement or disagreement with the question. It is my intention to meet with the teachers at a convenient time to discuss the details of administering the questionnaire since it would be more comfortable for the students if their classroom teacher carried out that task.

When the study is completed, I would be very happy to discuss the results of the study with the board or any of the staff who may be interested. Your concurrence in assisting me with the project will be very much appreciated.

Sincerely yours,



Merv Pentelichuk

10713 Melghen Crescent
North Battleford, Sask.
S9A 3K9

Mr. Norm Roach
Director of Education
Wilkie School Division #59
Box 360
Wilkie, Saskatchewan
S0K 4W0

Dear Mr. Roach:

As you are aware, I am on educational leave for the 1988-89 school year. I am taking graduate classes in educational administration at the University of Saskatchewan.

I would like to do a comparative study involving Indian students attending federal, band-operated, and provincial schools. The study involves comparing several variables as to possible correlations that may be helpful in assisting Indian students in the educational environment.

If at all possible, I would like to administer a school attitude survey to your grades four to six students (at Cutknife School) in the latter part of January, 1989. The questionnaire contains 75 items that are read to the children. Each child indicates on the instrument his agreement or disagreement with the question. Admistration time is approximately 30 minutes. The names of the children are not required. I will require certain information of the students as the questionnaires are picked up or handed in. As the analysis involves differences between boys and girls, that information needs to be indicated discreetly. In addition I will need to know whether the student is of native or non-native ancestry. This information should also be indicated discreetly on the questionnaire as it is picked up from the student. It is my intention to meet with the teachers at a convenient time to discuss the details of administering the questionnaire since it would be more comfortable for the students if their classroom teacher carried out that task.

When the study is completed, I would be very happy to discuss the results of the study with the board or any of the staff who may be interested. Your concurrence in assisting me with the project will be very much appreciated.

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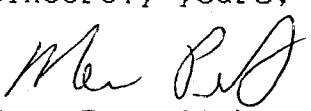


Merv Pentelichuk

10713 Meighen Crescent
North Battleford, Sask.
S9A 3K9

Mr. Wayne King
Director of Education
Turtleford School Division #65
Box 280
Turtleford, Saskatchewan
S0M 2Y0

Dear Mr. King

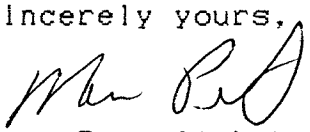
As you are aware, I am on educational leave for the 1988-89 school year. I am taking graduate classes in educational administration at the University of Saskatchewan.

I would like to do a comparative study involving Indian students attending federal, band-operated, and provincial schools. The study involves comparing several variables as to possible correlations that may be helpful in assisting Indian students in the educational environment.

If at all possible, I would like to administer a school attitude survey to your grades four to six students (at Turtlford School) in the latter part of January, 1989. The questionnaire contains 75 items that are read to the children. Each child indicates on the instrument his agreement or disagreement with the question. Admistration time is approximately 30 minutes. The names of the children are not required. I will require certain information of the students as the questionnaires are picked up or handed in. As the analysis involves differences between boys and girls, that information needs to be indicated discreetly. In addition I will need to know whether the student is of native or non-native ancestry. This information should also be indicated discreetly on the questionnaire as it is picked up from the student. It is my intention to meet with the teachers at a convenient time to discuss the details of administering the questionnaire since it would be more comfortable for the students if their classroom teacher carried out that task.

When the study is completed, I would be very happy to discuss the results of the study with the board or any of the staff who may be interested. Your concurrence in assisting me with the project will be very much appreciated.

Sincerely yours,



Merv Pentelichuk

10713 Meighen Crescent
North Battleford, Sask.
S9A 3K9

Dr. Stan Digout
Director of Education
North Battleford R.C.S.S.D. No. 16
9301-19th Ave.
North Battleford, Saskatchewan
S9A 3N5

Dear Dr. Digout:

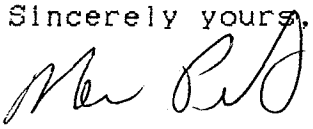
As you are aware, I am on educational leave for the 1988-89 school year. I am taking graduate classes in educational administration at the University of Saskatchewan.

I would like to do a comparative study involving Indian students attending federal, band-operated, and provincial schools. The study involves comparing several variables as to possible correlations that may be helpful in assisting Indian students in the educational environment.

If at all possible, I would like to administer a school attitude survey to your grades four to six students in the latter part of January, 1989. The questionnaire contains 30 items that are read to the children. Each child indicates on the instrument his agreement or disagreement with the question. The names of the children are not required. I will require certain information of the students as the questionnaires are picked up or handed in. As the analysis involves differences between boys and girls, that information needs to be indicated discreetly. In addition I will need to know whether the student is of native or non-native ancestry. This information should also be indicated discreetly on the questionnaire as it is picked up from the student. It is my intention to meet with the teachers at a convenient time to discuss the details of administering the questionnaire since it would be more comfortable for the students if their classroom teacher carried out that task.

When the study is completed, I would be very happy to discuss the results of the study with the board or any of the staff who may be interested. Your concurrence in assisting me with the project will be very much appreciated.

Sincerely yours,



Merv Pentelichuk

10713 Meighen Crescent
North Battleford, Sask.
S9A 3K9

Ms. Velma Night
Director of Education
Saulteaux Band
Box 9
Cochin, Saskatchewan
S0M 0L0

Dear Velma:

As you are aware, I am on educational leave for the 1988-89 school year. I am taking graduate classes in educational administration at the University of Saskatchewan.

I would like to do a comparative study involving Indian students attending federal, band-operated, and provincial schools. The study involves comparing several variables as to possible correlations that may be helpful in assisting Indian students in the educational environment. Attached, please find a copy of the survey and a letter from the professor who is supervising the project.

If at all possible, I would like to administer a school attitude survey to your grades four to six students in the latter part of January, 1989. The questionnaire contains 75 items that are read to the children. Each child indicates on the instrument his agreement or disagreement with the question. It is my intention to meet with the teachers at a convenient time to discuss the details of administering the questionnaire since it would be more comfortable for the students if their classroom teacher carried out that task.

When the study is completed, I would be very happy to discuss the results of the study with the school board/committee or any of the staff who may be interested. Your concurrence in assisting me with the project will be very much appreciated.

Sincerely yours,

Merv Pentelichuk

cc. Mr. L. Georgi

10713 Meighen Crescent
North Battleford, Sask.
S9A 3K9

Ms. Gladys Ironchild
Education Coordinator
Little Pine Band
Box 249
Paynton, Saskatchewan
S0M 2J0

Dear Gladys:

As you are aware, I am on educational leave for the 1988-89 school year. I am taking graduate classes in educational administration at the University of Saskatchewan.

I would like to do a comparative study involving Indian students attending federal, band-operated, and provincial schools. The study involves comparing several variables as to possible correlations that may be helpful in assisting Indian students in the educational environment. Attached, please find a copy of the survey and a letter from the professor who is supervising the project.

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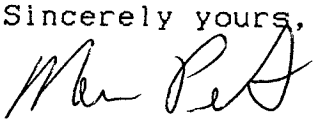
When the study is completed, I would be very happy to discuss the results of the study with the school board/committee or any of the staff who may be interested. Your concurrence in assisting me with the project will be very much appreciated.

Sincerely yours,



Merv Pentelichuk

cc. Mr. D. Hall

10713 Meighen Crescent
North Battleford, Sask.
S9A 3K9

Mr. Joe Carter
Director of Education
Onion Lake Band
Onion Lake, Saskatchewan
S0M 2E0

Dear Joe:

As you are aware, I am on educational leave for the 1988-89 school year. I am taking graduate classes in educational administration at the University of Saskatchewan.

I would like to do a comparative study involving Indian students attending federal, band-operated, and provincial schools. The study involves comparing several variables as to possible correlations that may be helpful in assisting Indian students in the educational environment. Attached, please find a copy of the survey and a letter from the professor who is supervising the project.

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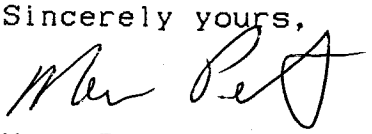
Sincerely yours,



Merv Pentelichuk